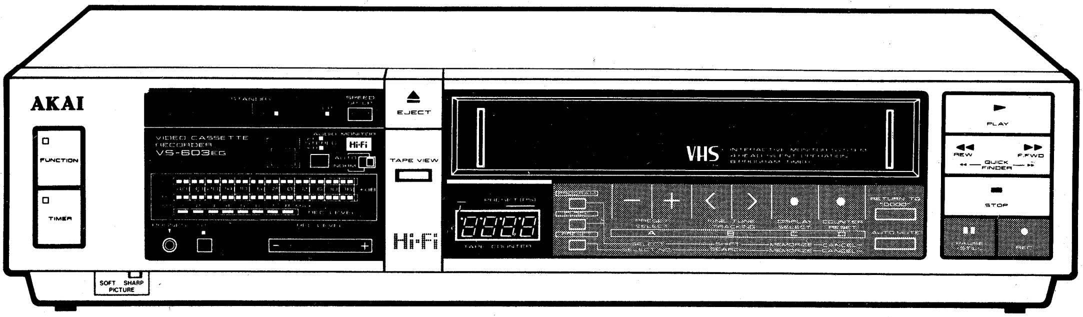
AKAI SERVICE MANUAL


AKAI
FUNCTION
TIMER
VIDEO CASSETTE RECORDER
VS-603EG
Hi-Fi
EJECT
TAPE VIEW
VHS
PLAY
REW
F.FWD
QUICK FINDER
STOP
PAUSE/STILL
REC
SOFT SHARP
PICTURE

HiFi VIDEO CASSETTE RECORDER

MODEL VS-603EG/EK/ES/EZ
MODEL VS-606EA/EO
MODEL VS-607EO-G

ABBREVIATIONS LIST

ABBREVIATION	EXPLANATION	ABBREVIATION	EXPLANATION
AC	Alternating Current	LM STP	Loading Motor SToP
ACC	Auto Color Control	LP	Long Play
A/C	Audio and Control	LPF	Low Pass Filter
ADJ	ADJust(ment)	LSW	Loading SWitch
AFC	Auto Frequency Control	ME-SECAM	Middle East SECAM
AFT	Auto Fine Tuning	MI-COM	MIcro COMputer
AGC	Auto Gain Control	MM	Mono-stayble Multi
AH(P)	Audio Head (Play Back)	MRS	Motor ReverSe
AH(R)	Audio Head (Record)	NG	Noise Gate
AL	ALl	NON-LIN	NON-LINear
AL	ALways	N.T.S.C.	National Television System Committee
ALC	Auto Level Control	O MUTE	Output MUTE
A-SW·P	Audio-SWitching·Pulse	OSC	OSCillator
A·MUTE	Audio·MUTE	PAL	Phase Alternation Line
AUT/MAN	AUTO/MANual	PB	Play Back
ANT	ANTenna	P-COM	Phase-COMparator
APC	Automatic Phase Control	PDN	Power DowN
ASSY	ASSemblY	PG	Pulse Generator
BAL	BALance	PL, PLG	PLunger (PLunGer)
B/C	Buzz and Charactor	POS	POSition
B DOWN	Break DOWN	PRG	PRoGram
BGP	Burst Gate Pulse	P & S	Power supply & System control
BLK	BLacK or BLock	PU	Pick Up (head, pulse)
BM	Balanced Modulator	PWR	PoWeR
BPF	Band Pass Filter	Q	Quality factor
BS	Band Select	RC	Rotary Control
BS (SB)	Brake Supply (Supply Brake)	REC	RECord
BT (TB)	Brake Takeup (Takeup Brake)	REF	REFerence
BU	Back Up	REF-V	REFerence Vertical signal
B/W	Black and White	REG	REGulator
CCIR	Comité Consultatif International des Radio Communications	REV (REVW)	REView (REVieW)
		REW	REWind
CH (Ch.)	CHannel (Channel)	RFB	Radio Frequency Booster
CK	Color Killer	RM	Reel Motor
CLK	CLocK	RM PWR	Reel Motor PoWeR
CLP	CLiP	R·S SW	Record·Safety SWitch
CM	Capstan Motor	RST (RES)	ReSeT (RESet)
CN	CoNnector	RVS	ReVerSe
COMP	COMParator	S	Sensor, Shield
Comp	Comparison	SC	SimulCast
C or R	Cue or Review	S CLK	Serial CLocK
CR 1	Cue Review 1 (high)	S & A	Servo & Audio
CSW	Cassette SWitch	SECAM	Séquentiel à Memoire
CTL	ConTroL	SEP (SEPA)	SEParator (SEPArator)
CUE	CUE	SFP	Sync Front Pulse
CW	Carrier Wave	S & H	Sample and Hold
DAC	Digital to Analog Converter	SLP	Super Long Play
DC	Direct Current	SP	Standard Play
DEMOD	DEMODulator	SPD	SPeeD
DET	DETect (DETector)	SRP	Supply Reel Pulse
DL	Delay Line	SRV	SeRVo
DM	Drum Motor	SOW	Sync On Word
DOC	Drop Out Compensator	STBY	STandBY
D·P·E	Drum·Phase·Error	SW	SWitch
D·PG	Drum·Pulse Generator	SW'NG	SWitchiNG
D·TPZ	Drum·TraPeZoid	SWP	SWitching Pulse
EE	Electronic to Electronic	SYNC	SYNChronize
EF	Emitter Follower	T-AUDIO	Tuner AUDIO
EM	Eject Motor	TA-MUTE	Tuner Audio MUTE
EMPHA	EMPHAsis	TPZ (TRAPE)	TraPeZoid (TRAPEzoid)
ENVIN	ENVelope INput	TRK	TRacKing
ESW	Eject SWitch	TRP	Take up Reel Pulse
EQ	EQualizer	T/U	Take Up
FE	Full track Erase	TV	TeleVision
FF	Flip-Flop	UHF	Ultra High Frequency
FG	Frequency Generator	UNR	UNRegulated
Fig.	Figure	V	Vertical
FM	Frequency Modulation	VCO	Voltage Controlled Oscillator
Fo	resonance Frequency	VD	Vertical Drive
FREQ	FREQuency	VF	Voltage for Fine tuning
FSI	Field Start Inhibit	VHF	Very High Frequency
GND	GrouND	VHS	Video Home System
H	Horizontal	VID	VIDeo
HP	Horizontal (sync) Pulse	VIDEO-J	VIDEO Judge
HPF	High Pass Filter	VIF	Video Intermediate Frequency
HT	HeaTer	VJ	Video Judge
IC	Integrated Circuit	VM	Voltage for Memory
ID	IDentification	VOB	Video On Blank
IDL	IDLe (Voltage)	VOW	Video On Word
INS	INSert	VP	Vertical (sync) Pulse
INV	INVerter	VT	Voltage for Tuning
L·CTL	Lamp·ConTroL	WHT	WHiTe
LED	Light Emitting Diode	2H	2 Hour (SP)
LDI	LoaD Input	6H	6 Hour (SLP)
LM	Loading Motor		

AKAI
HiFi
VHS

HiFi VIDEO CASSETTE RECORDER

MODEL VS-603EG/EK/ES/EZ
MODEL VS-606EA/EO
MODEL VS-607EO-G

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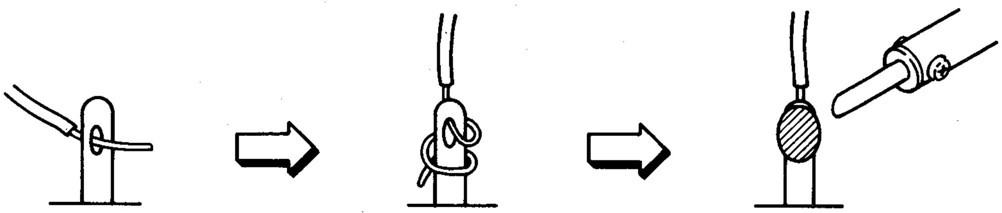
SAFETY INSTRUCTIONS

SAFETY CHECK AFTER SERVICING

Confirm the specified insulation resistance between power cord plug prongs and externally exposed parts of the set is greater than 10 Mohms, but for equipment with external antenna terminals (tuner, receiver, etc.) and is intended for $\boxed{C}$ or $\boxed{A}$, specified insulation resistance should be more than 2.2 Mohms (ground terminals, microphone jacks, headphone jacks. line-in-out jacks etc.)

PRECAUTIONS DURING SERVICING

1. Parts identified by the ⚠ symbol parts are critical for safety.
   Replace only with parts number specified.
2. In addition to safety, other parts and assemblies are specified for conformance with such regulations as those applying to spurious radiation. These must also be replaced only with specified replacements.
   Examples: RF converters, tuner units, antenna selector switches, RF cables, noise blocking capacitors, noise blocking filters, etc.
3. Use specified internal wiring. Note especially:
   1) Wires covered with PVC tubing
   2) Double insulated wires
   3) High voltage leads
4. Use specified insulating materials for hazardous live parts. Note especially:
   1) Insulation Tape
   2) PVC tubing
   3) Spacers (Insulating Barriers)
   4) Insulation sheets for transistors
   5) Plastic screws for fixing microswitch (especially in turntable)
5. When replacing AC primary side components (transformers, power cords, noise blocking capacitors, etc.), wrap ends of wires securely about the terminals before soldering.



6. Observe that wires do not contact heat producing parts (heatsinks, oxide metal film resistors, fusible resistors, etc.).
7. Check that replaced wires do not contact sharp edged or pointed parts.
8. Also check areas surrounding repaired locations.
9. Use care that foreign objects (screws, solder droplets, etc.) do not remain inside the set.

VOLTAGE CONVERSION

The models VS-603EZ, VS-606EA/EO and VS-607EO-G are not equipped with this facility. The operating voltages of these models are preset at the factory according to destination. However, the operating voltages of the models VS-603EG, VS-603EK and VS-603ES can be set to 110V or 220V, 200V or 240V, 220V or 250V respectively as required.

If your machine's voltage can be converted:

1. Disconnect the power cord.
2. Set the VOLTAGE SELECTOR located on the rear panel, with a screwdriver, until the correct voltage for your area is indicated.

220V ☐ 110V	**240V ☐ 200V**	**250V ☐ 220V**
VOLTAGE SELECTOR	**VOLTAGE SELECTOR**	**VOLTAGE SELECTOR**
VS-603EG	VS-603EK	VS-603ES

CYCLE CONVERSION

With DC MOTOR CYCLE CONVERSION is not necessary.

SECTION 1

OPERATING MANUAL

MODEL VS-603EG

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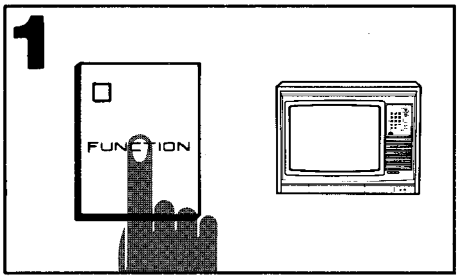
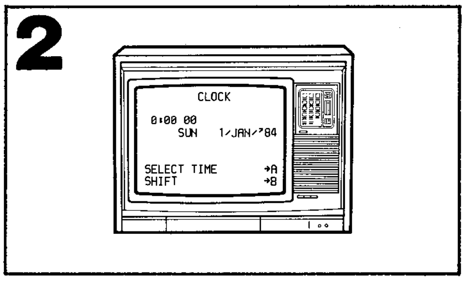
Tuning the TV to the video channel

The Akai VCR sends out a signal similar to that transmitted by a TV station. By tuning your TV (to the video channel) to receive this signal, you can select programs from the Akai VCR as you would select a program with the TV's channel selector.

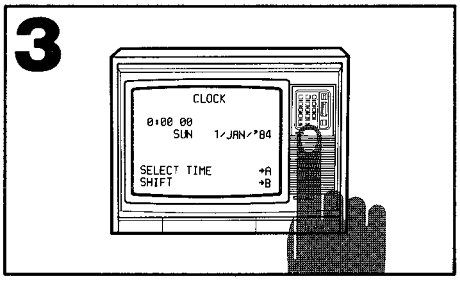


Depress the FUNCTION button to TURN ON.

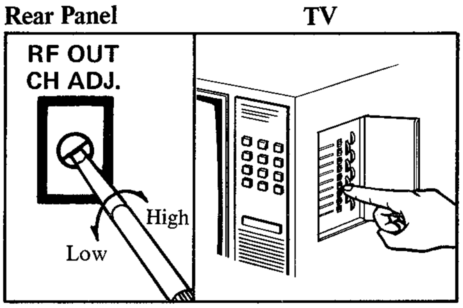


The CLOCK setting display will be sent to the TV. This will be your guide for fine tuning to the video channel.

If your TV has an Automatic Frequency Control (AFC) or Automatic Fine Tuning control (AFT), switch it off. (On some TV's this is done automatically when the control panel door is opened.) Turn it back on after tuning the video station, and check that there is no significant deterioration of the picture.



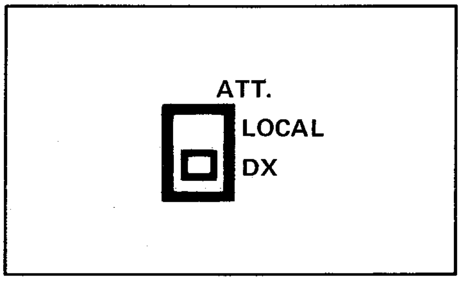
Adjust your TV tuner until a picture (the time information) is obtained in the neighbourhood of channel 36.
Fine tune the TV to optimize picture quality.
Whenever you want to watch programs from the Akai VCR, tune your TV to this video channel.



If channel 36 is being used for broadcasting by a TV station in your area, your TV must be set to an unused channel between UHF 30 and 39. Do this by adjusting the TV channel selector a little at a time until the TV screen goes blank. (Set it towards a higher or lower station.)
Then adjust the RF converter on the rear panel of the VCR, a little at a time with a screwdriver until the CLOCK display appears clearly on the TV screen.

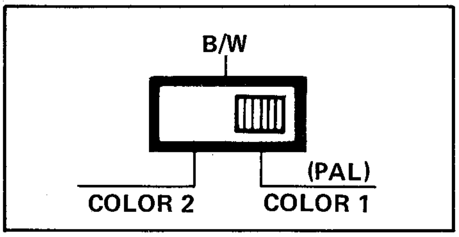
* If the channel selector was set higher, set the RF converter higher, etc.

Rear Panel



On the LOCAL/DX attenuator switch
The LOCAL/DX switch on the rear panel of the VCR is used to adjust the signal reception of the tuner section.
If the picture develops wavy lines during reception of a local TV station broadcast, it may be that the signal reception is too strong. In that case, move this selector to the LOCAL position to attenuate the signal strength.
If TV reception during, say a broadcast by satellite, is poor and contains too much picture "noise", set this switch to the DX position to improve the picture reception.
(Normally, leave this switch in the DX position.)

Rear Panel

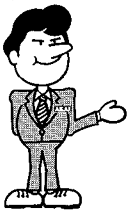


Video mode selector

The video mode selector is used to select the type of signal to be recorded or played back.

COLOR-2	Set to this position for SECAM B/G color system recording or playback.
B/W	Set to this position for CCIR standard monochrome system recording or playback.
COLOR-1 (PAL)	Set to this position for PAL color (PAL) system recording or playback.

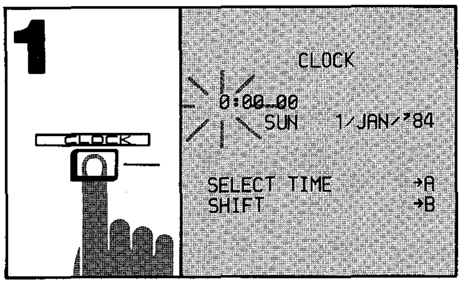
Now you are ready to watch prerecorded tapes. Or, choose a preset station for TV reception from the tuner inside the Akai VCR.



Let's set the timer to the actual time

There is a 24 hour digital timer clock inside the Akai VCR, which keeps time for such operations as pre-set program recording. Therefore, the clock must be properly set.

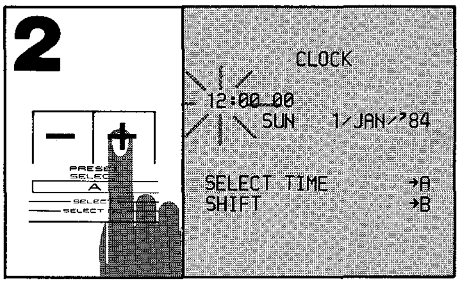
1



CLOCK
0:00 00
SUN 1/JAN/'84
SELECT TIME →A
SHIFT →B

Depress the CLOCK button to display the information for setting the time to the actual time on your TV screen.

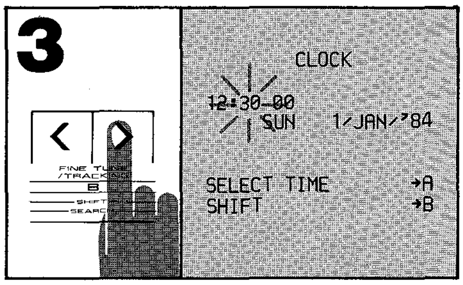
2



CLOCK
12:00 00
SUN 1/JAN/'84
SELECT TIME →A
SHIFT →B

To follow the instruction "SELECT TIME → A", depress the –A+ button to select the correct hours.

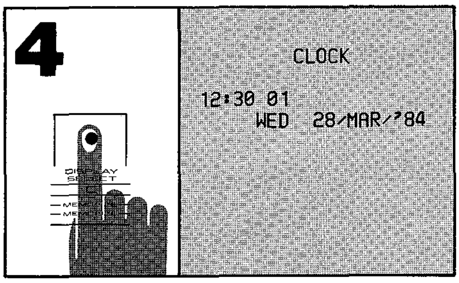
3



CLOCK
12:30 00
SUN 1/JAN/'84
SELECT TIME →A
SHIFT →B

To follow the instruction "SHIFT → B", depress the <B> button to shift to the next item to be set: minutes.
Continue operating the –A+ and <B> buttons until all the time and date settings are correct.

4

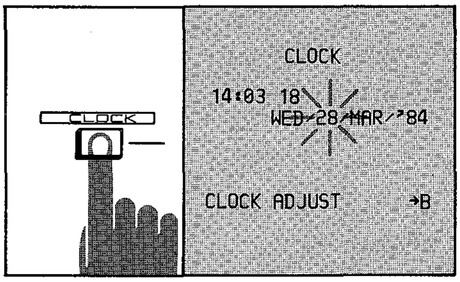


CLOCK
12:30 01
WED 28/MAR/'84

MEMORIZE

When you have correctly set the timer to the actual time, follow the instruction "IF OK, MEMORIZE → C", by depressing the C button to memorize the data.

* The timer will start keeping time.

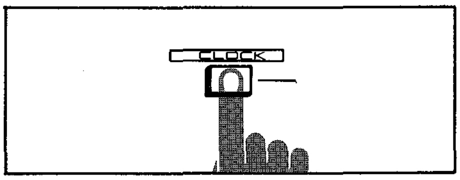


CLOCK
14:03 18
WED 28/MAR/'84
CLOCK ADJUST →B

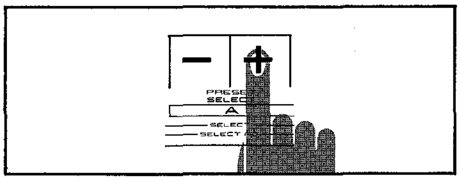
The full display is maintained for approximately 3 seconds. To recall the time, depress the CLOCK button again. Depressing the CLOCK button also removes the display.

If you want to reset the actual time and date

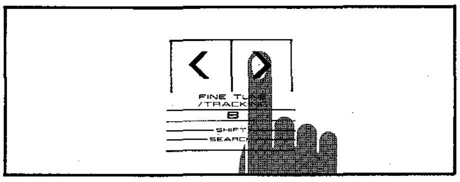
Depress the CLOCK button to display the information for resetting the timer to the actual time.

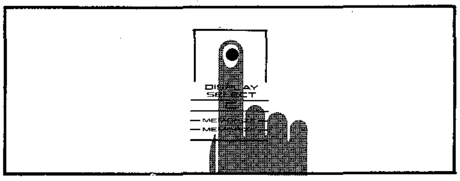


Follow the instruction "CLOCK ADJUST → B", by depressing the <B> button to display the information for setting the timer to the actual time.

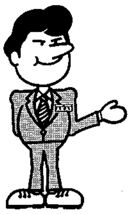


To follow the instruction "SHIFT → B", depress the <B> button again and again until the item you want to reset flashes on and off. Then use the –A+ and <B> buttons to reset the clock information.
Reset other items in the same manner. After you have reset all incorrect items, go to the next step.





Depress the C button to memorize the new data.



Let's playback a prerecorded tape

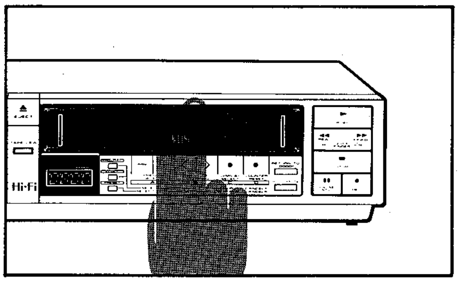
Check before starting

❶	Power cord is properly connected to the household AC outlet.
❷	TV set to the video channel.
❸	Amplifier is turned on and set to AUX or TAPE.

Important

A video cassette tape can be loaded or unloaded only when the Akai VCR is plugged in.
If a tape is inserted when the FUNCTION button is turned off, the VCR will automatically be turned on.

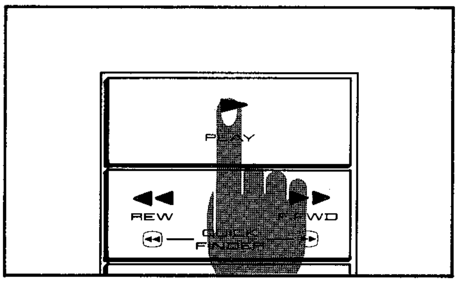
INSERT TAPE



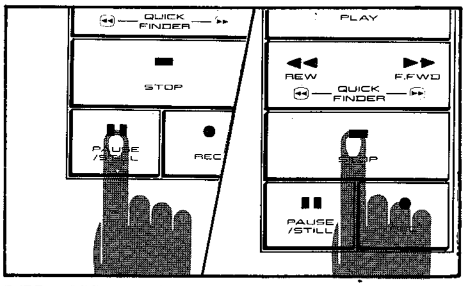
Insert the video cassette tape correctly into the cassette loading compartment and give it a little push.

* Follow the markings on the video cassette tape to correctly insert it into the cassette loading compartment. If the video cassette tape is not inserted correctly it will be ejected.

DEPRESS PLAY



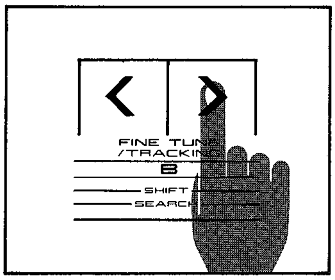
"PLAY" will be displayed on the TV screen for approximately 3 seconds.
The VCR will automatically set the playback speed to correspond with the speed at which the tape was recorded (LP, or SP).
Whenever the end of the tape is reached, the tape will automatically rewind to the beginning.

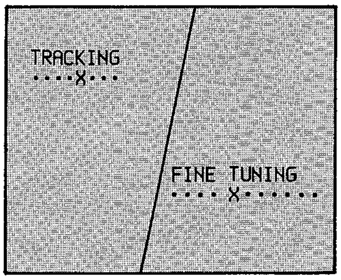


DEPRESS PAUSE or STOP to temporarily or permanently stop play.
To prevent damage to the tape, the VCR will automatically switch to the STOP mode after more than 3 min. in PAUSE.

FINE TUNING/TRACKING control

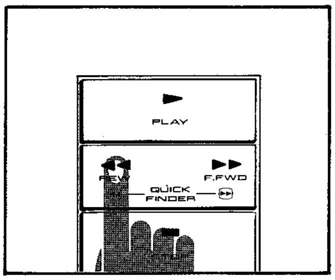
There may be disturbances in the playback picture. This can occur when you play back a tape recorded with another video cassette recorder or when the broadcast from a TV station is not clear. To improve the picture, depress the < ⊟ > button.
The TRACKING display will appear on the TV screen when playing a tape, and the FINE TUNING display will appear when receiving a TV broadcast. The "X" is normally set to center of the display.
To improve the picture, depress the < ⊟ > button on the – or + side. The "X" moves to indicate TRACKING or FINE TUNING is taking place.
When the picture is clear, release the button The display will disappear a few seconds later.

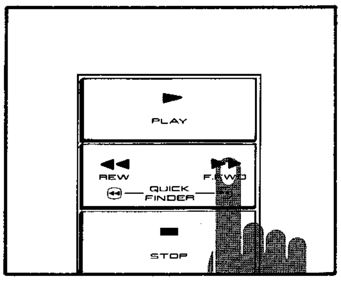




Quick Finder

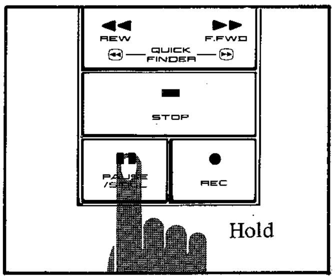
Use the Akai quick finder system during playback to visually locate any point on a recorded tape. The tape will be played back very quickly and no sound will be heard during quick finder operation.
While in the PLAY mode, depress the QUICK FINDER (⊖) or (⊕) button just once. The picture will go forward or backward very quickly. When you reach the point you are looking for, depress the PLAY (►) button to resume normal playback.
Note: There will be disturbances in the picture during quick finder operation. This is normal and does not indicate a problem with the VCR.



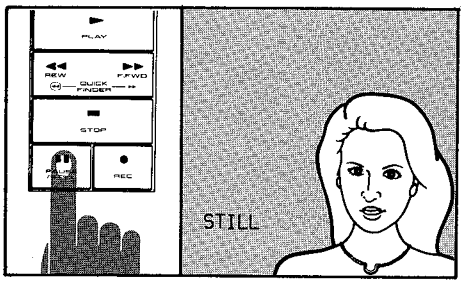


Slow motion

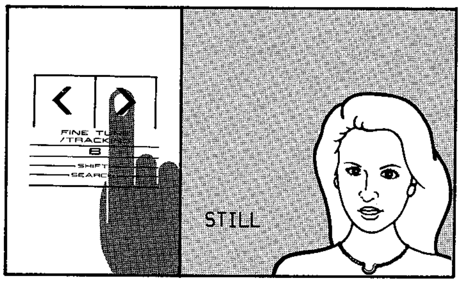
The VCR can play back the tape in slow motion by simply holding down the PAUSE/STILL button during PLAY. The tape will be played at 1/25th of its normal speed. If the PAUSE/STILL (▮▮) button is depressed more than 3 minutes, the VCR will automatically switch to the REC PAUSE mode. If this happens, depress the STOP button to reset.



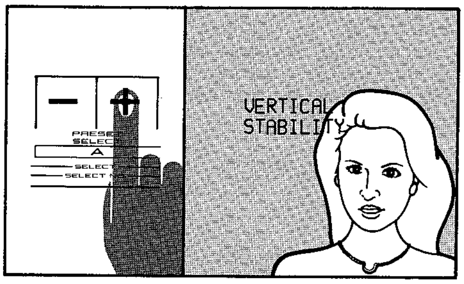
Still picture playback



During playback, you can obtain a still picture by depressing the PAUSE/STILL (❚❚) button just once.
No sound will be heard in the STILL mode. To advance the picture step by step, repeatedly depress and release the PAUSE/STILL (❚❚) button.
To resume normal playback depress the PLAY (►) button.



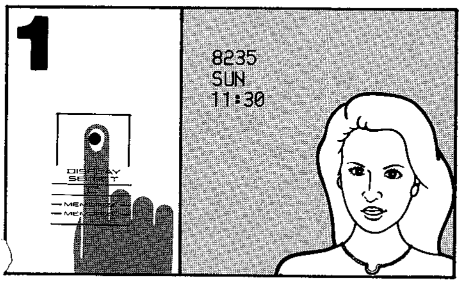
In LP there will be some noise bars during still picture playback.
The noise bars which appear during LP still picture playback, can be positioned in such a way that you can look clearly at the details you want. All you have to do is repeatedly depress the < ▣ > button until the noise bars are properly positioned.



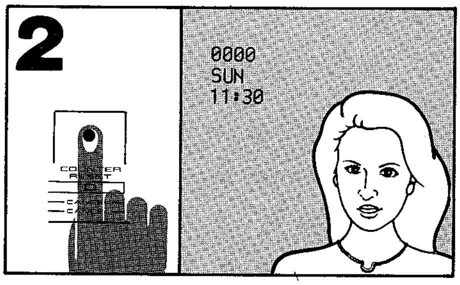
If the still picture vibrates, depress the < or > side of the −▣+ button. The display for "**VERTICAL STABILITY**" will be shown on the TV screen. Hold down either side of the −▣+ button until vibration is reduced. Release the button when finished, and the display will disappear.

RETURN TO "0000"

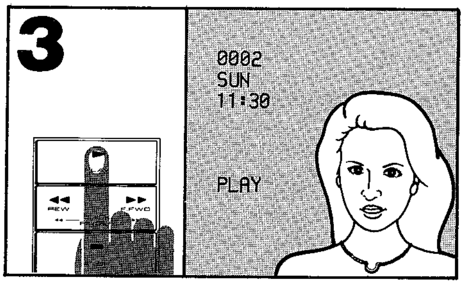
Use the RETURN TO "0000" system to quickly return to the beginning of any tape segment in either the play or record modes.



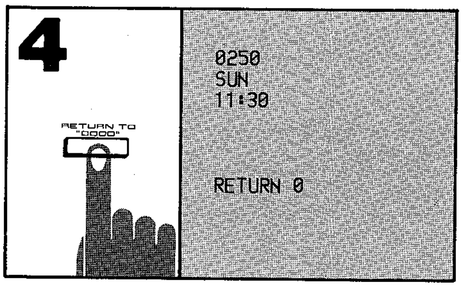
When you have located the point on the tape to which you want to return, repeatedly depress the ▣ button until the tape counter is displayed on the TV screen.



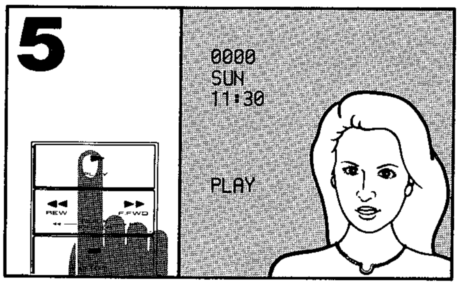
Depress the ▣ button to reset the tape counter to "0000".



Depress the PLAY (►) button for at least 1 second to begin playback.
* "PLAY" will be displayed on the TV screen for approximately 3 seconds.

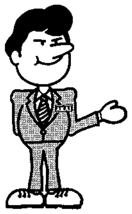


When you are ready to return to the point where you began playback, depress the RETURN TO "0000" button.
The tape will rewind to the beginning of the program (in other words, to the counter reading of "0000") and stop.



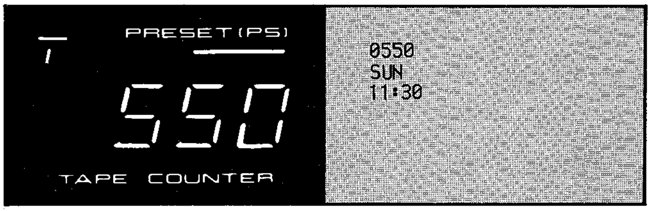
To repeat the process , depress the PLAY (►) button again.
NOTE:
To use the RETURN TO "0000" system during recording, depress the REC (●) button instead of the PLAY (►) button in step 3.

NOTES:
To **Unload** a tape
Depress the EJECT (▲) button. The video cassette tape will be ejected. Take out the video cassette tape.
The EJECT (▲) button can be depressed any time **except** during regular, automatic and sleep time recording.
The F.FWD and REW buttons have two functions, From the **PLAY** mode, they function as the Quick Finder control. From the **STOP** mode, they function as normal Fast Forward and Rewind.

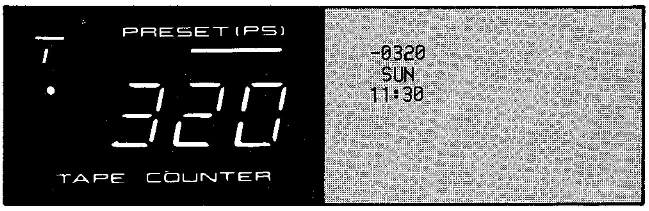


Convenient features of the VCR

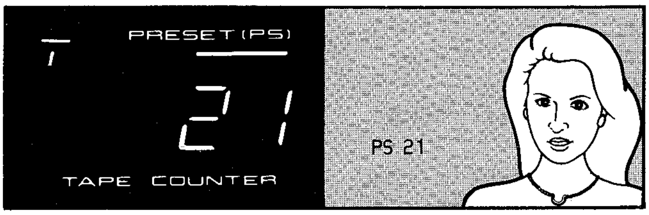
On the Tape Counter and Channel display



The tape counter can be viewed on the front panel of the VCR, or on the TV screen display by depressing the ▭ button, when the VCR is in the EXT mode, or when the play button is depressed. When not in the EXT mode, the counter can be viewed on the TV screen only.



The tape counter mode contains a negative sign (-) on the TV display which is depicted by a dot (.) on the front panel display of the VCR. This negative sign appears whenever the tape is rewound past the counter reading of "0000" (for instance when "0000" is set somewhere in the middle of the tape for use with the RETURN TO "0000" function). When the negative sign appears, the counter will count "down" to "0000", before again counting up. Of course, you can reset the counter to "0000" at any time by use of the ▭ button.

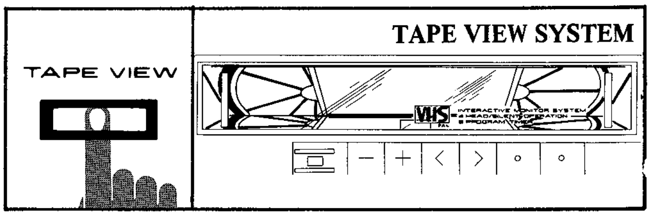


The front panel display of the VCR will also show the preset number, along with the TV screen display, whenever the -▭+ button is depressed to select a preset station. However, while the TV display disappears after a few seconds, the PS display on the front of the VCR remains to remind you of the station you are watching.

The Elapsed Time display tells you how many hours and minutes have elapsed since play back or recording began.
The Elapsed Time display is most useful in the PLAY and RECORD modes.

Tape View System

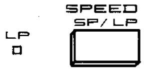
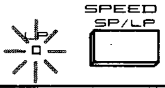
The Tape View System can be used for early detection of a problem with the tape or tape mechanism inside the VCR, by allowing you to directly view the tape during any mode. In addition, the Tape View System stays lit when the VCR is in the STOP, F.FWD, and REW modes, to let you know a tape is already loaded. During PLAY and REC, the Tape View system stays lit for 3 seconds only. The system works automatically when you depress a tape transport button, or at any time by depressing the TAPE VIEW button.



On the TAPE SPEED Selector

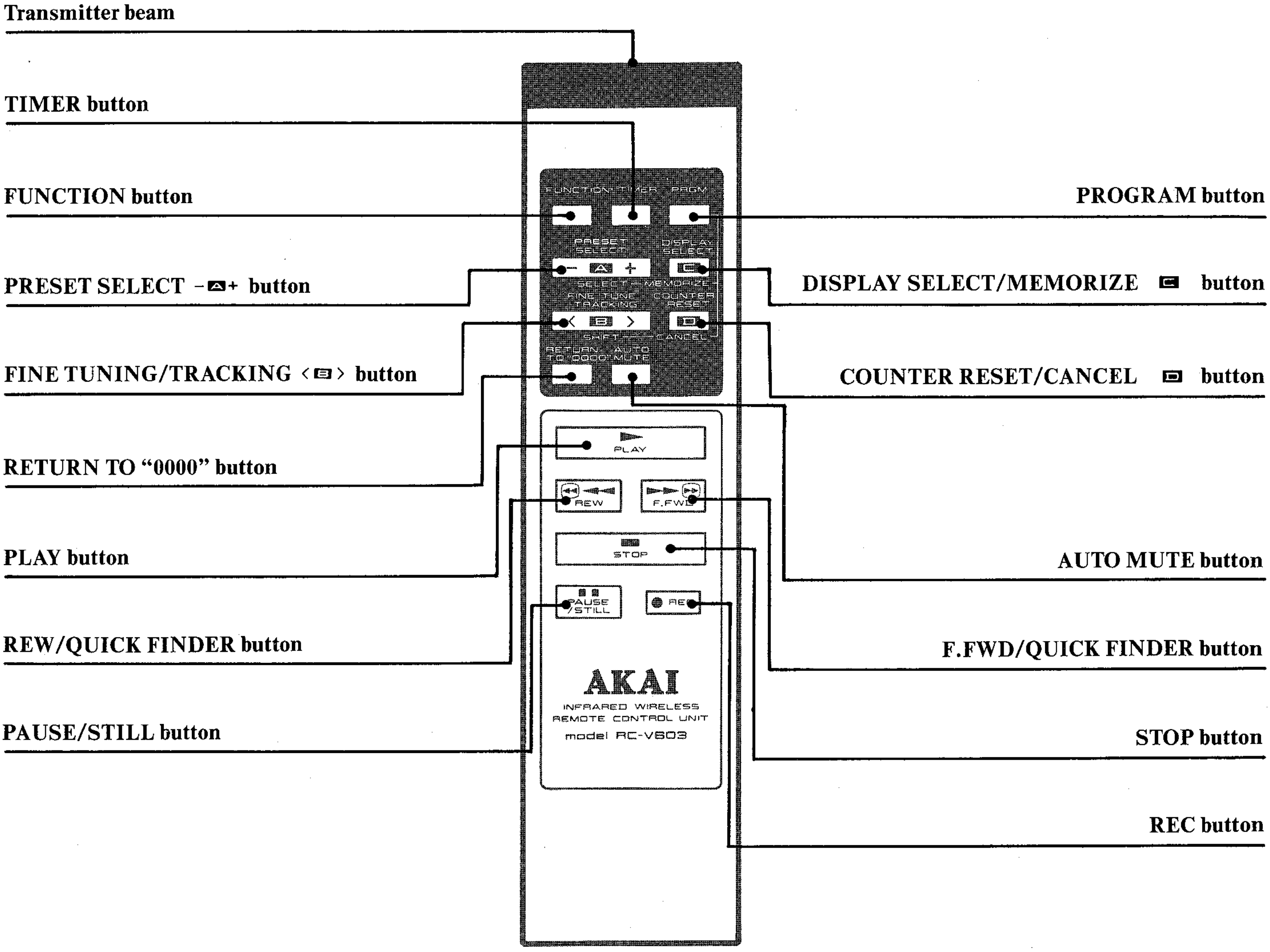
* Before recording, set the SPEED selector according to how long you want to record. During playback, the Akai VCR automatically detects and after a few seconds, plays back at the correct speed.

NOTE:
Akai does not recommend recording at two different speeds on one video cassette tape. Never change the SPEED selector during recording.

TAPE SPEED switch	Mode	Video Cassette				
		E-240	E-180	E-120	E-60	E-30
	Recording or playback Manual or Auto	4 hrs	3 hrs	2 hrs	1 hr	30 min
	Recording or playback Manual or Auto	8 hrs	6 hrs	4 hrs	2 hrs	1 hrs

On the remote control unit RC-V603

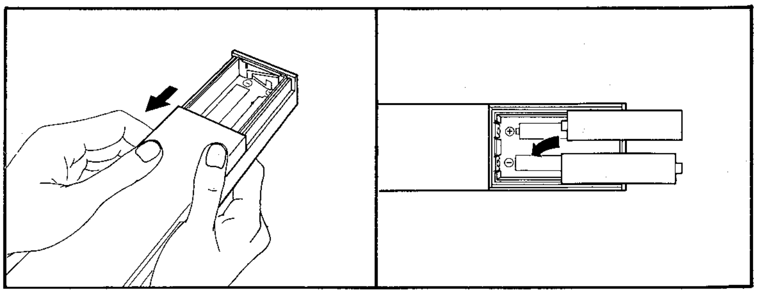
The operation buttons of the Akai RC-V603 are used the same way as the operation buttons on the front panel of the Akai VCR except for the EJECT, CLOCK, and PRESET buttons which do not appear on the RC-V603.

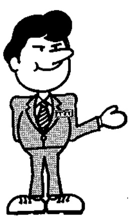

Transmitter beam
TIMER button
FUNCTION button
PRESET SELECT -A+ button
FINE TUNING/TRACKING ‹B› button
RETURN TO "0000" button
PLAY button
REW/QUICK FINDER button
PAUSE/STILL button
PROGRAM button
DISPLAY SELECT/MEMORIZE C button
COUNTER RESET/CANCEL D button
AUTO MUTE button
F.FWD/QUICK FINDER button
STOP button
REC button
FUNCTION TIMER PRGM
PRESET SELECT
DISPLAY SELECT
SELECT MEMORIZE
FINE TUNE TRACKING
COUNTER RESET
SHIFT CANCEL
RETURN TO 0000
AUTO MUTE
PLAY
REW
F.FWD
STOP
PAUSE STILL
REC
AKAI
INFRARED WIRELESS REMOTE CONTROL UNIT
model RC-V603

How to load the batteries for the Akai RC-V603

1. Slide back the battery compartment cover.
2. Insert two AA, R6 or equivalent size batteries into the battery compartment as shown in the illustration.
3. Replace the battery compartment cover.

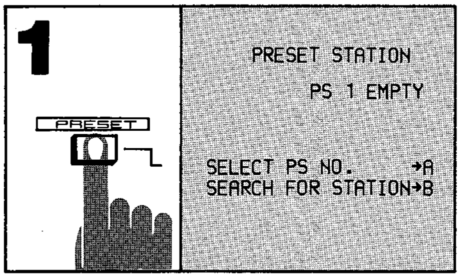
NOTE:
When changing the batteries, change all the batteries at the same time.



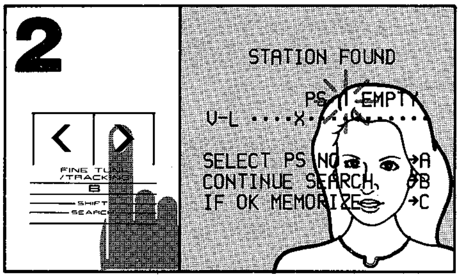


Let's preset the Akai VCR with TV stations

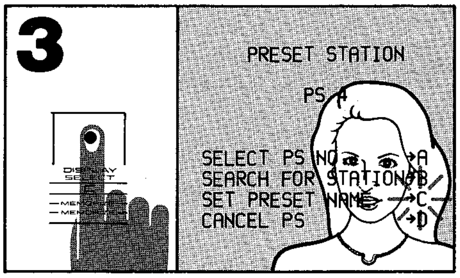
The Akai VCR must be tuned to the locally available TV stations. We call this procedure "presetting". Up to 16 TV stations can be preset.
There is an automatic station search system inside the Akai VCR which searches for and tunes in TV stations. We call this searching for and tuning in of TV stations "station search".


1
PRESET
PRESET STATION
PS 1 EMPTY
SELECT PS NO. →A
SEARCH FOR STATION→B

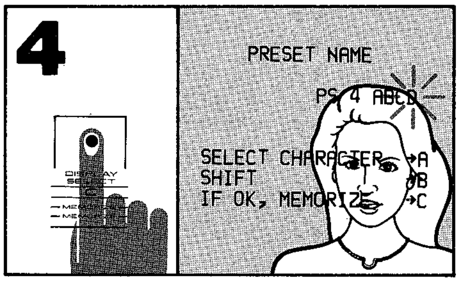
Depress the PRESET button to display the information for presetting the Akai VCR on your TV screen.
To follow the instruction "SEARCH FOR STATION → B", depress the <▣> button just once.
The "X" will move from the left to right, visually indicating the search for TV stations.


2
STATION FOUND
PS 1 EMPTY
V-L ····X·····
SELECT PS NO →A
CONTINUE SEARCH →B
IF OK MEMORIZE →C

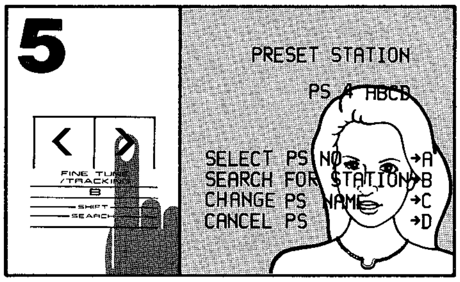
Station search stops when a TV station is found (i.e. tuned in) and this information and a program from the found TV station will be displayed. If the display and the program are not clear, the TV station may be incapable of being memorized. In that case, or if you do not want to memorize the station, depress the <▣> button to resume station search.


3
PRESET STATION
PS 4
SELECT PS NO →A
SEARCH FOR STATION→B
SET PRESET NAME →C
CANCEL PS →D

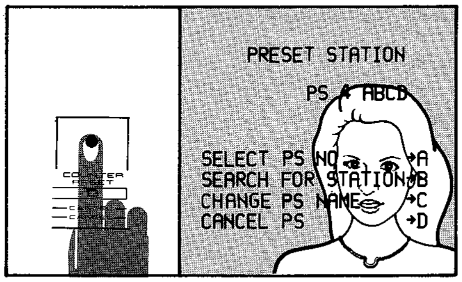
To follow the instruction "IF OK, MEMORIZE → C", depress the ▣ button. Then to follow the instruction "SET PRESET NAME → C", depress the ▣ button again to assign some call letters to the preset station.


4
PRESET NAME
PS 4 ABCD
SELECT CHARACTER →A
SHIFT →B
IF OK, MEMORIZE →C

Depress the -▣+ and <▣> buttons to select up to 4 characters (A to Z). If you don't wish to set any letters, depress the ▣ button to memorize the TV station into the selected preset station number.

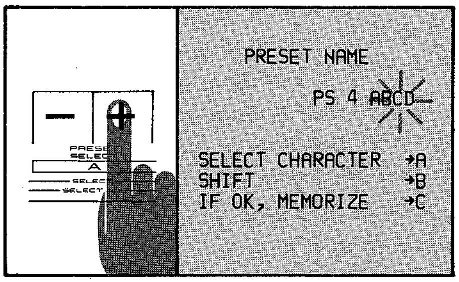

5
PRESET STATION
PS 4 ABCD
SELECT PS NO →A
SEARCH FOR STATION→B
CHANGE PS NAME →C
CANCEL PS →D

To follow the instruction "SEARCH FOR STATION → B", depress The <▣> button to restart station search.
The automatic search for stations proceeds through VHF Low, VHF High and UHF. The VCR scans all available stations. The station search can be repeated over the same area by depressing the (<) side of the <▣> button.
To stop station search operation, depress the PRESET button again. The display will disappear from the TV screen.

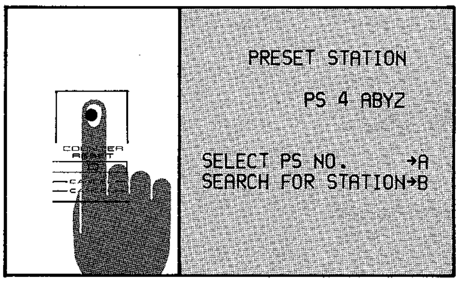

PRESET STATION
PS 4 ABCD
SELECT PS NO →A
SEARCH FOR STATION→B
CHANGE PS NAME →C
CANCEL PS →D

To cancel a preset TV station:
Depress the PRESET button.
Depress the -▣+ button to select the station to be canceled.
Depress the ▣ button to cancel the preset station.
Depress PRESET again to remove the display.

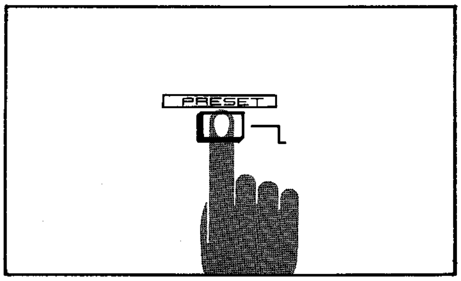
If you want to change a preset TV station number


PRESET NAME
PS 4 ABCD
SELECT CHARACTER →A
SHIFT →B
IF OK, MEMORIZE →C

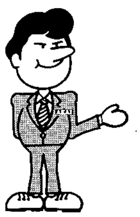
Depress the PRESET button.
Depress the -▣+ button to select the station to be changed.


PRESET STATION
PS 4 ABYZ
SELECT PS NO. →A
SEARCH FOR STATION→B

Depress the ▣ buttton to to display the information for resetting the TV station number.
Depress the -▣+ and <▣> buttons in order, to select a new number.



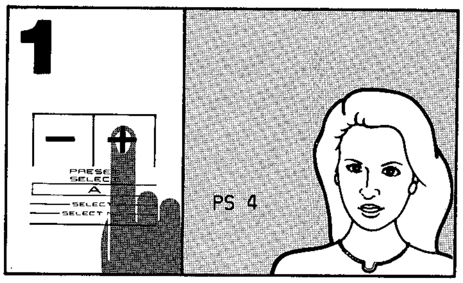
Depress the ▣ button to memorize.
To remove the display, depress the PRESET button.
The PS number will be displayed on the front panel of the VCR.



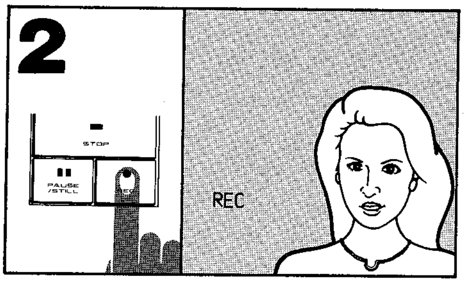
Let's record a TV program

Check before starting

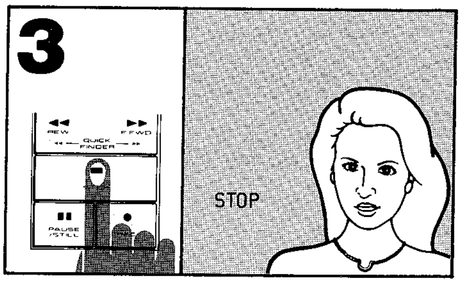
❶	A video cassette tape is loaded and it's recording defeat tab is not broken.
❷	The SPEED selector is set.



Depress the -▣+ button to select the preset channel number memorized with the TV station to be recorded.



Turn on the Amplifier and set to the AUX or TAPE 2 position. Depress the REC (●) button for at least one second to begin recording. Or depress the PAUSE button and adjust the VCR's recording level before depressing the REC button.

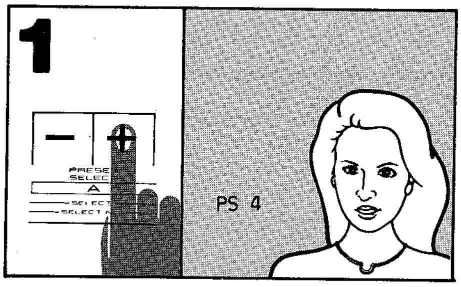


To stop recording depress the STOP (■) or PAUSE button.

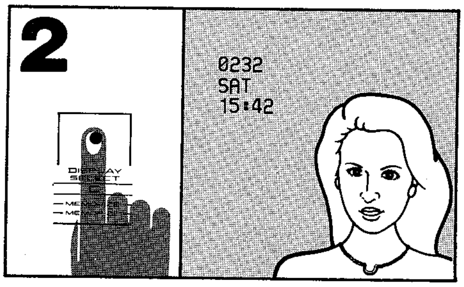
Note: When using the REC and STOP buttons to record a program, their will be some overlap in the recorded images in order to prevent noise from appearing between cuts. However, if you want to be sure not to lose a few seconds of image between stops and starts, depress the PLAY button to forward the tape to the exact place you left off, before recording the next portion of tape.

Would you like to index your recordings?

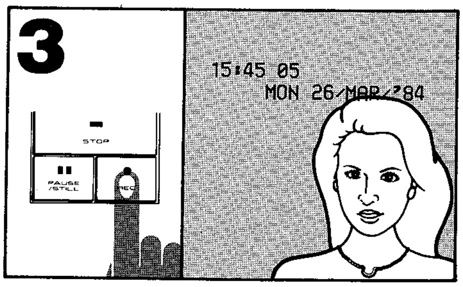
The date, time and preset channel number can be recorded automatically at the beginning of a recording for approximately 7 seconds. When you playback the tape at a later time, you can tell when it was recorded.



Depress the -▣+ button to select the preset channel number memorized with the TV station to be recorded. The program from the selected TV station will be displayed on the TV screen. At the same time, the selected preset channel number will be displayed on the TV screen for approximately 3 seconds.



Repeatedly depress the ▣ button until the display containing the day of the week and the actual time is shown on the TV screen.



Depress the REC (●) button for at least one second to begin recording.
The index (date, time and preset channel number) will be displayed on the middle of the TV screen. This display will be recorded for approximately 7 seconds.

Now when you playback this recording, the date, and time that recording took place will be documented at the beginning of the tape.

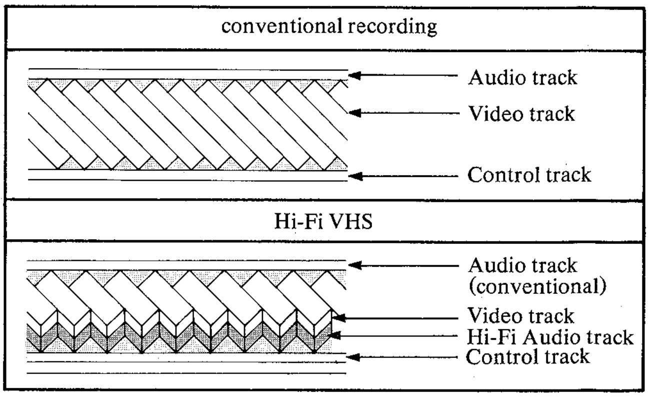
To watch one program while recording another

After following steps 1 and 2 of let's record,
Set the TV to the channel you want to watch with the TV's channel selector.
Recording will continue while you watch another station.

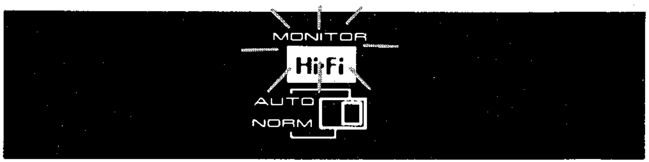
Hi-Fi VHS audio recording and playback

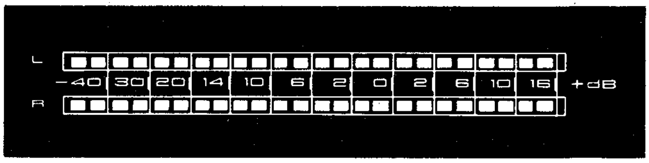
The Akai VCR is equipped with the ability to record or playback with full Hi-Fi stereo sound.

The VCR does this by using 2 audio heads mounted on the video drum, in addition to the 4 video heads. These heads run in the same path as the video heads and "layer" the audio track under the video track as illustrated.
Since you may want to playback tapes recorded with a conventional audio system, the Akai VCR is also equipped with a standard audio head and automatic selector to switch from normal to Hi-Fi playback. When a tape recorded on the conventional audio track is played on this VCR, the Hi-Fi indicator turns off, indicating automatic selection of the conventional audio track. The Hi-Fi NORMAL/AUTO selector is also provided to select the conventional or Hi-Fi tracks manually if you should need to. Normally, keep this selector in the AUTO position.
The playback volume is adjusted with the amplifiers volume control. Recording is always carried out on the Hi-Fi and conventional tracks simultaneously.



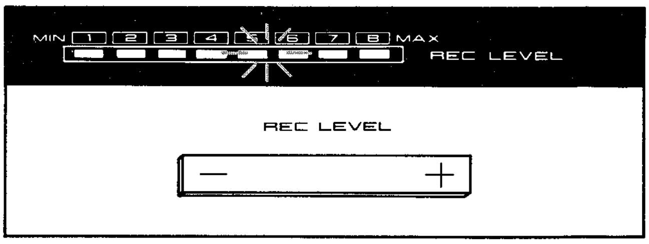
The VCR features a Peak Level meter and REC LEVEL control to allow better control when recording in the Hi-Fi mode only.
The VCR's Peak Level meter is color coded to make dB level identification quick and easy.
The dB level from −40 to 0dB is colored green.
The level from 0 to +6dB is colored orange.
The level above +6dB is colored red.
As the colors imply, green is a "safe" recording level; orange is a maximum recording level; red is an area where distortion is likely to occur. To produce the best recording results, set the REC LEVEL control so that the volume does not exceed the orange (+6dB) level on the VCR's Level meter.





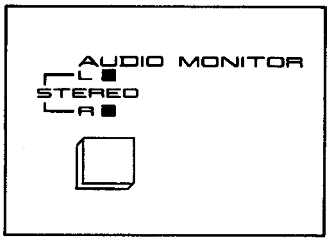
The VCR is also equipped with an initialization circuit, which automatically sets conventional audio track recording level and resets to a preset, optimun recording level when the power cord is unplugged. This is indicated on the REC LEVEL display by the red light at number 5.
This preset level should produce excellent recording. However, if you would like to change the REC LEVEL, depress the + or − side of the REC LEVEL control.

The volume level during playback can be adjusted by use of the amplifier's volume control.



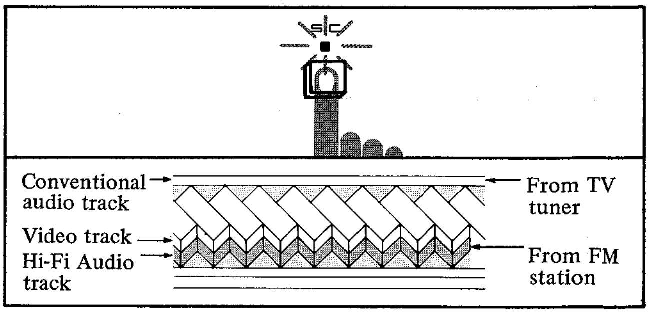
On the AUDIO MONITOR

The AUDIO MONITOR selector allows you to monitor the left or right channels of the Hi-Fi track independently.
This is useful when playing back bilingual tapes. Both indicators light when STEREO is selected. This selector is only for monitoring the Hi-Fi audio track.



On the Simulcast feature

The S.C. selector serves as a switch for mixing the video portion of a TV broadcast, with the audio from an FM radio broadcast. This function is necessary for the simultaneous recording of an FM broadcast and a TV broadcast called simulcast.
Connect the FM tuner to the amplifiers tuner jacks and connect the amplifier to the VCR as shown on page 4 (Hi-Fi sound in recording and play back).
Depress the S.C. selector of the VCR, (the indicator will light), and get ready for recording following the operations on page 13.
The FM sound is recorded on the Hi-Fi track. At the same time, the TV broadcast sound is recorded on the conventional track.

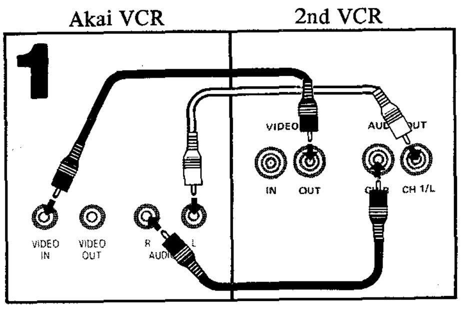


Additional recording and playback functions

The Akai VCR is equipped with several additional features to help make operation simple and convenient.

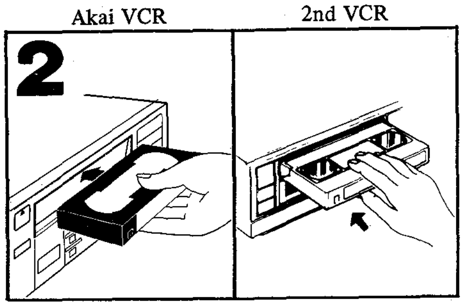
External recording (Tape dubbing)

The Akai VCR allows you to easily record from another VCR by use of the External mode (EXT) selected with the -▭+ button. With another VCR as the source, you can make a copy of any tape on the Akai VCR.

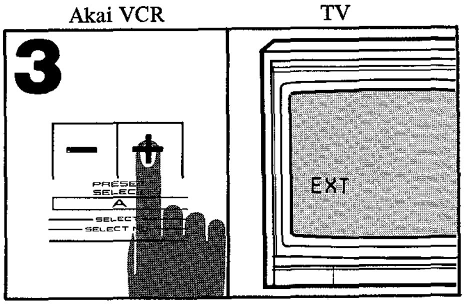


Connect a second VCR to the Akai VCR as shown.

Note: To use the Akai VCR as the source deck, while recording on the 2nd VCR, connect the VIDEO OUT and AUDIO OUT of the Akai VCR to the VIDEO IN and AUDIO IN of the 2nd VCR.



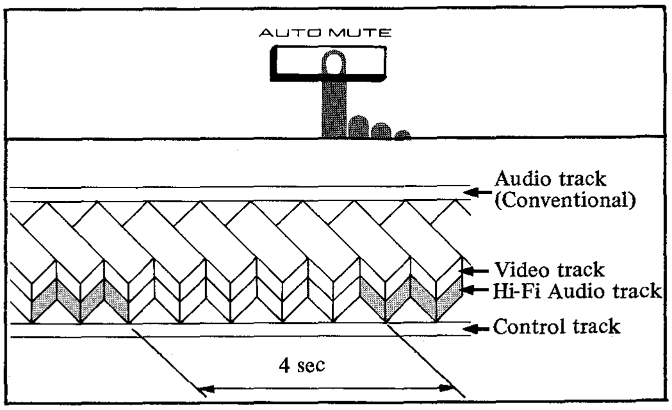
Turn on both VCR's and the TV. Put the source tape in the other VCR, and a blank tape into the Akai VCR.



Depress the -▭+ button until EXT appears on the TV screen display. Then follow the recording instructions on page 13.

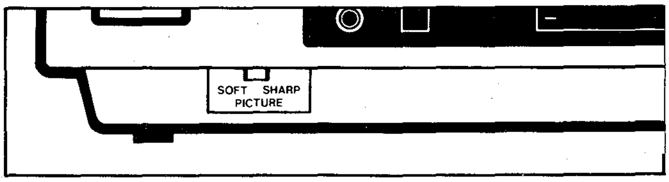
Auto Mute

The Auto Mute function automatically produces 4 seconds of blank tape in the audio track, whenever it is depressed during recording. This is useful when using the VCR as a tape deck for audio recording only.
When you have finished recording a song and are waiting to begin the next recording, depress the AUTO MUTE button to automatically produce 4 seconds of blank space.
Note: When recording video, be careful not to depress the Auto Mute button. Although the video portion of the recording will not be effected, there will be a 4sec. gap in the audio track.
After producing 4 seconds of blank space, the VCR goes into the REC PAUSE mode.



SHARP/SOFT PICTURE control

Use this 3 position switch to soften or sharpen the image on the TV screen. The switch should normally be left in it's PICTURE (center) position.

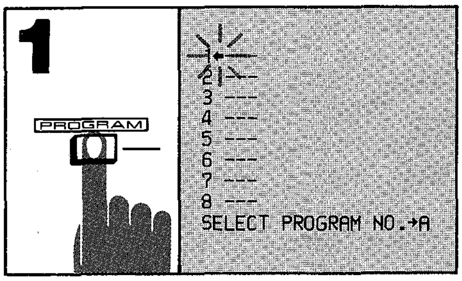


Further recording and playback notes:

- To fast forward the tape, depress the F.FWD (►►) button while in the STOP mode. "FF" will be displayed on the TV screen for approximately 3 seconds.
- To rewind the tape, depress the REW (◄◄) button while in the STOP mode.
  * "REW" will be displayed on the TV screen for approximately 3 seconds.
- The tape is not visible during fast forward or rewind operations.
- If the REC (●) button will not function, check to see if the video cassette tape's recording defeat tab is broken. If it is, cover the hole with a piece of adhesive tape.
- If you repeatedly depress the -▭+ button too quickly, the station number shown on the TV screen might not correctly indicate the TV station selected. However, the number shown on the VCR's front panel display will correctly show the station number.

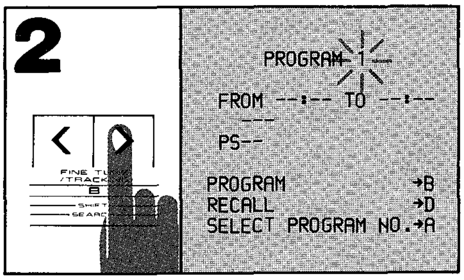
Programming the Akai VCR for automatic recording

By programming the Akai VCR, you can make it turn itself on, record a TV program and turn itself off, all automatically.
Up to 8 programs can be set in advance you can freely choose the Time, Day, Week and TV station you wish to record, and you can program up to 4 weeks in advance.



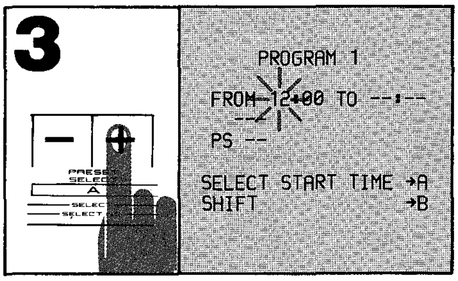
```
1 ←
2
3 ---
4 ---
5 ---
6 ---
7 ---
8 ---
SELECT PROGRAM NO.→A
```

Depress the PROGRAM button to display the information for programming on your TV screen.
To follow the instruction "SELECT PROGRAM NO. → A", hold the -▲+ button depressed until the arrow points to the program number you want to set.



```
PROGRAM 1
FROM --:-- TO --:--
---
PS--
PROGRAM          →B
RECALL           →D
SELECT PROGRAM NO.→A
```

This information will be displayed when the -▲+ button is released.
To follow the instruction "PROGRAM → B", depress the < ⊟ > button to start programming.

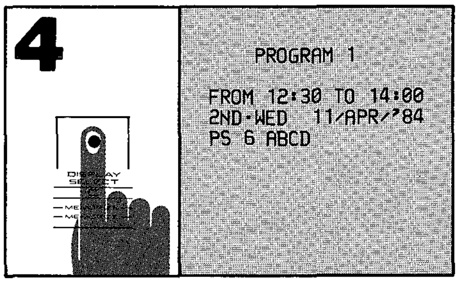


```
PROGRAM 1
FROM 12:00 TO --:--
---
PS --
SELECT START TIME →A
SHIFT             →B
```

START TIME HOURS

To follow the instruction "SELECT START TIME → A", depress the -▲+ button to select the turn on hours.

Continue by depressing the < ⊟ > button to shift to the next setting, and the -▲+ button to change any of the information. As you proceed, you will notice that the display is instructing you to first select the **START TIME**, then the **STOP TIME** of the program you wish to record. The next indication is **SELECT DAY,** however the week must be set first. For details on this operation, see page 17. The next information to be set is the actual day of the week on which you want recording to be carried out. The actual date on the left of the screen will change automatically during this operation. The final information to be set is the actual channel which is broadcasting the show you wish to record. This is done by putting in the PRESET number which is memorized with that station. See PRESETTING page 11.

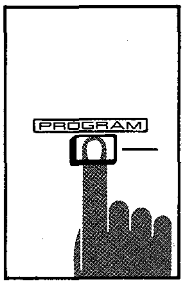


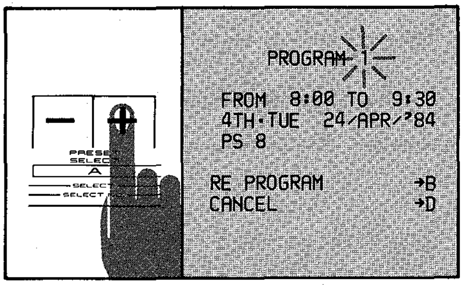
```
PROGRAM 1
FROM 12:30 TO 14:00
2ND·WED  11/APR/'84
PS 6 ABCD
```

Programming is now finished.
To follow the instruction "IF OK, MEMORIZE → C", depress the ⊟ button to memorize the program.
To program more automatic recording times, repeat the procedure from step 1.
If you want to remove the programming display from your TV screen, depress the PROGRAM button again.

To cancel a program after it has been memorized

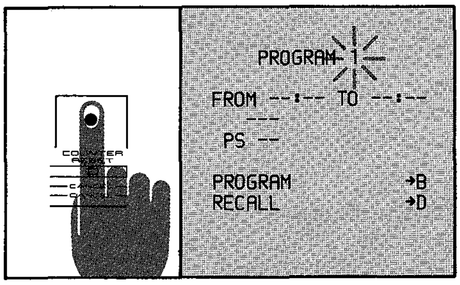
Depress the PROGRAM button.





```
PROGRAM 1
FROM 8:00 TO 9:30
4TH·TUE 24/APR/'84
PS 8
RE PROGRAM   →B
CANCEL       →D
```

To follow the instruction "SELECT PROGRAM NO. → A", depress the -▲+ button until the arrow points to the program you want to cancel.

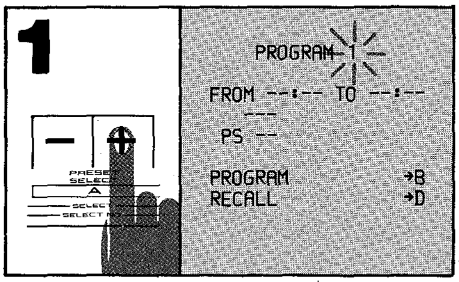


```
PROGRAM 1
FROM --:-- TO --:--
---
PS --
PROGRAM    →B
RECALL     →D
```

To follow the instruction "CANCEL → D", depress the ⊟ button to cancel the program. To reprogram repeat the programming procedure above.

If you want to recall a finished or canceled program

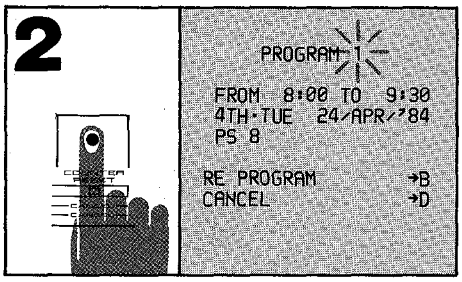
When an automatic recording has been carried out according to a program, nothing will be displayed beside its program number when the PROGRAM button is depressed. To recall the program, modify it and carry it out again, follow these instructions.



```
PROGRAM 1
FROM --:-- TO --:--
 ---
 PS --

PROGRAM          →B
RECALL           →D
```

To follow the instruction "SELECT PROGRAM NO. → A", depress the -A+ button until the arrow points to the program you want to recall.

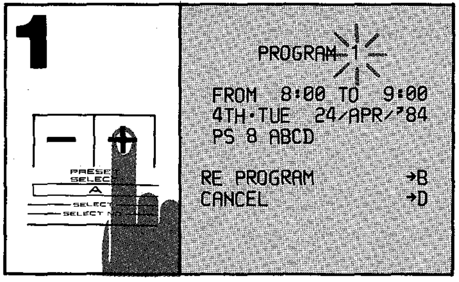


```
PROGRAM 1
FROM  8:00 TO  9:30
4TH·TUE  24/APR/'84
PS 8

RE PROGRAM       →B
CANCEL           →D
```

To follow the instruction "RECALL → D", depress the D button to recall the program. Same thing applies for canceled programs.
To remove the information depress the PROGRAM button.

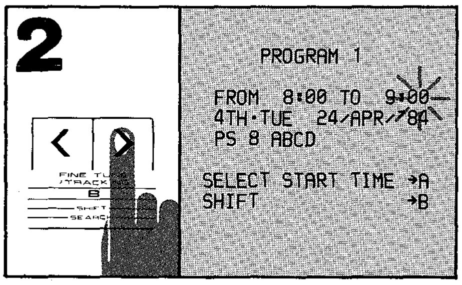
To reset a program after it has been memorized



```
PROGRAM 1
FROM  8:00 TO  9:00
4TH·TUE  24/APR/'84
PS 8 ABCD

RE PROGRAM       →B
CANCEL           →D
```

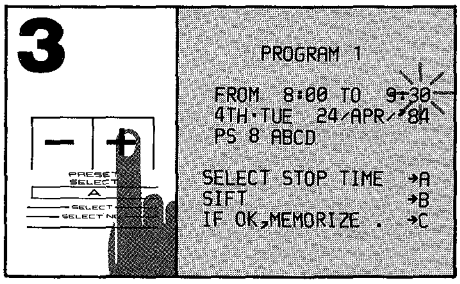
Depress the PROGRAM button.
To follow the instruction "SELECT PROGRAM NO. → A", depress the -A+ button until the arrow points to the program you want to reset.



```
PROGRAM 1
FROM  8:00 TO  9:00
4TH·TUE  24/APR/'84
PS 8 ABCD

SELECT START TIME →A
SHIFT             →B
```

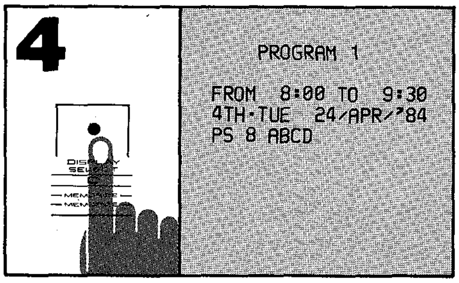
To follow the instruction "REPROGRAM → B", depress the > side of the <B> button.
To follow the instruction "SHIFT → B", depress the <B> button again until the item you want to reset flashes on and off.



```
PROGRAM 1
FROM  8:00 TO  9:30
4TH·TUE  24/APR/'84
PS 8 ABCD

SELECT STOP TIME  →A
SIFT              →B
IF OK,MEMORIZE .  →C
```

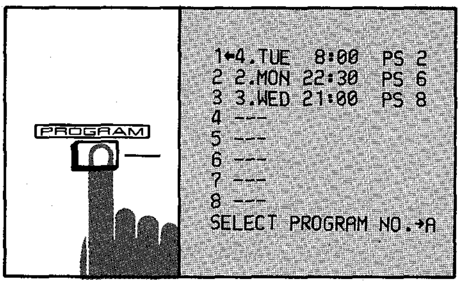
Then to follow the instruction "SELECT START TIME/STOP TIME/DAY/ or PRESET. → A", depress the -A+ button and reset the item. Reset other items in the same manner. After you have reset all the items, go to the next step.



```
PROGRAM 1
FROM  8:00 TO  9:30
4TH·TUE  24/APR/'84
PS 8 ABCD
```

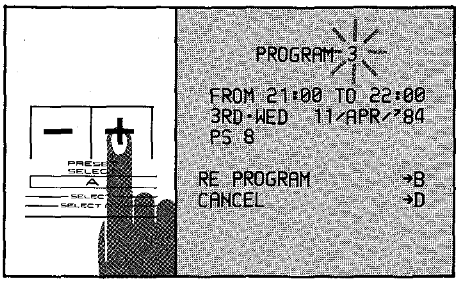
To follow the instruction "IF OK, MEMORIZE → C", depress the C button.
To remove the information, depress the PROGRAM button.

If you want to confirm a program



```
1←4.TUE  8:00  PS 2
2 2.MON 22:30  PS 6
3 3.WED 21:00  PS 8
4 ---
5 ---
6 ---
7 ---
8 ---
SELECT PROGRAM NO.→A
```

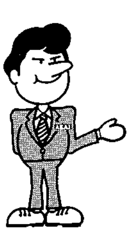
Depress the PROGRAM button.
The week, day of the week, start time and preset channel number of each program, will be displayed. "– – –" indicates that no program has been set or the program was carried out.



```
PROGRAM 3
FROM 21:00 TO 22:00
3RD·WED  11/APR/'84
PS 8

RE PROGRAM       →B
CANCEL           →D
```

To confirm a program in more details, follow the instruction "SELECT PROGRAM NO. → A". Hold the -A+ button depressed until the arrow points to the program you want to confirm. To confirm other programs, follow the instruction "SELECT PROGRAM NO. → A", and depress the -A+ button.
To remove the information, depress the PROGRAM button.



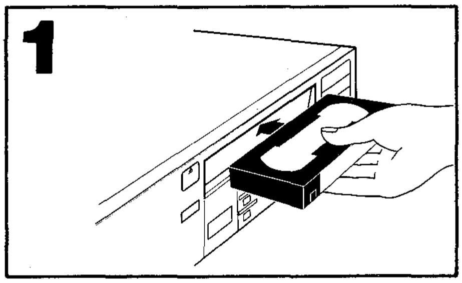
Let's proceed with automatic recording

If you want to automatically record an index (date, time and preset channel), repeatedly depress the ⊟ button until the display containing the day of the week and the actual time is displayed on the TV screen.

Check before starting

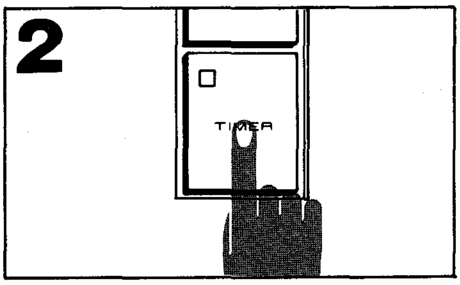
❶	SPEED selector is set.

1



Insert a video cassette tape.
Confirm that the recording defeat tab is not broken. If it is, cover the hole with a piece of adhesive tape.
Make sure that the video cassette tape will be long enough for the duration of automatic recording.

2



Depress the TIMER button to make the Akai VCR standby for automatic recording.
Confirm that its indicator is on.
The FUNCTION button will be turned off automatically.

NOTE:
You can watch a TV program during automatic recording by setting the TV itself to the channel you want.
* Turn off the TV if you are not going to watch a program.
The Akai VCR will turn on 6 seconds before the programmed turn on time. One second later, it will automatically start recording and at the programmed turn off time, it will stop recording and turn itself off.
When a tape is inserted, the tape counter is automatically set to "0000". After a timer program is carried out, the tape counter will remain set to the point where recording was finished. When you turn the VCR back on, simply depress the RETURN TO "0000" button. The tape will rewind to the beginning of the timer recorded program and stop.

AN EXAMPLE OF 4-WEEK TIMER SETTING

"4-week" pre-setting means that you can "reserve" recording time on any one of 28 days in advance-including the day of setting. This means that beginning with today, you can pre-program your Akai VCR to automatically record at any time on any day for 28 days.

For example, let's say that today is Monday AUG. 1st and you wish to preset a recording time for later on tonight. Then set the week and day for "1st Monday" which will mean today (AUG. 1st). So now it follows that if you want to pre-set time for next Monday (AUG. 8th), you will set the week and day for "2nd Monday" and so on for "3rd Monday" (AUG. 15th) and "4th Monday" (AUG. 22nd). The same thing applies to the other days of the week.

Now let's say its Tuesday AUG. 2nd at 9:00 PM and you want to pre-set recording time for 8:00 PM the following Tuesday (AUG. 9th). Since it is already past 8:00 PM today (AUG. 2nd) when you are doing the setting, you must set the week and day for "1st Tuesday" since the 1st Tuesday you can record at 8:00 PM is now next week (AUG. 9th). In other words, "1st Tuesday" means the first Tuesday you can record at the time desired. The same thing applies to the other days of the week.

August

SUN	MON	TUE	WED	THE	FRI	SAT
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

September

				1	2	3
4	5	6	7	8	9	10

PROGRAM LIST

Program No.	Channel	TV program	Date	Start time	Stop time	Memo

IMPORTANT

PROGRAM PRIORITY

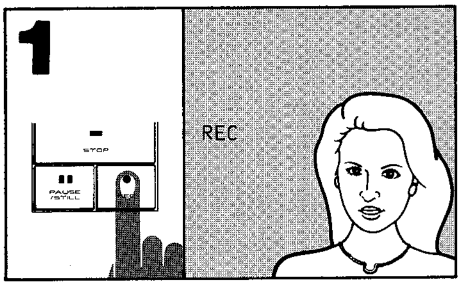
- If two programs are set to turn on at the same day and time the smaller program number has priority.
- If two programs overlap, the earlier program will be interrupted by the latter one.

Sleep time setting

Check before starting

❶	A video cassette tape is loaded.
❷	Amplifier is turned on.
❸	SPEED selector is set.

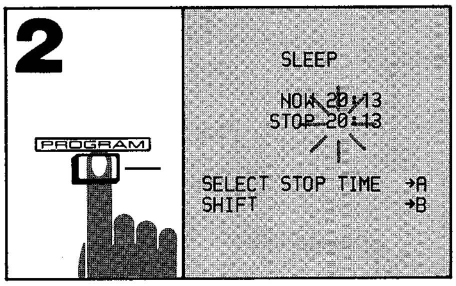
The Akai VCR can be set to stop recording and turn itself off automatically when you have to leave before the program you are recording is finished. We call this turn off time "SLEEP TIME".



```
REC
```

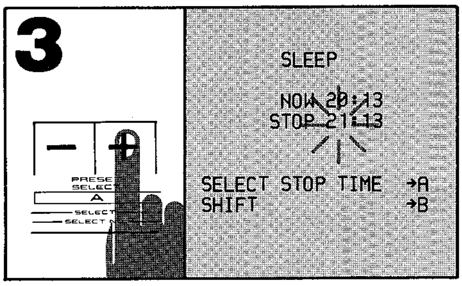
How to set sleep time

Depress the REC (●) button for at least 1 second to record a TV program.
* "REC" will be displayed on your TV screen for 3 seconds.



```
SLEEP
NOW 20:13
STOP 20:13
SELECT STOP TIME →A
SHIFT            →B
```

Depress the PROGRAM button to display the information for setting the sleep time on your TV screen.

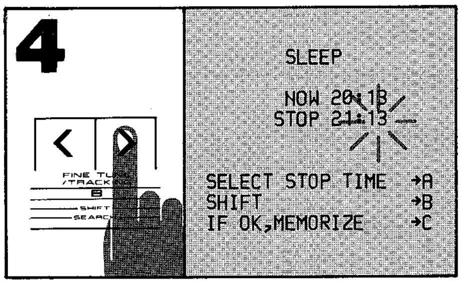


```
SLEEP
NOW 20:13
STOP 21:13
SELECT STOP TIME →A
SHIFT            →B
```

STOP TIME HOURS

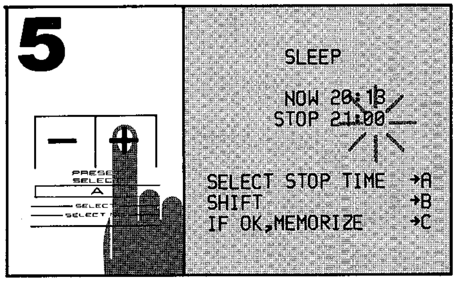
To follow the instruction "SELECT STOP TIME → A", depress the -▣+ button to select the stop time hours.

0, 1, 2 .... up to 23



```
SLEEP
NOW 20:13
STOP 21:13
SELECT STOP TIME →A
SHIFT            →B
IF OK,MEMORIZE   →C
```

To follow the instruction "SHIFT → B", depress the <▣> button to shift to the next item to be set: stop time minutes.

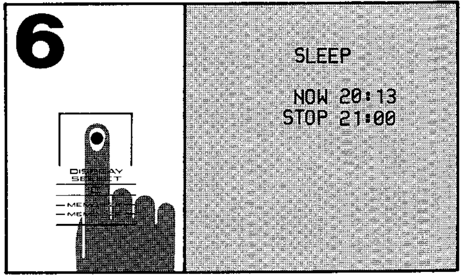


```
SLEEP
NOW 20:13
STOP 21:00
SELECT STOP TIME →A
SHIFT            →B
IF OK,MEMORIZE   →C
```

STOP TIME MINUTES

To follow the instruction "SELECT STOP TIME → A", depress the -▣+ button to select the stop time minutes.

00, 01, 02, ... up to 59

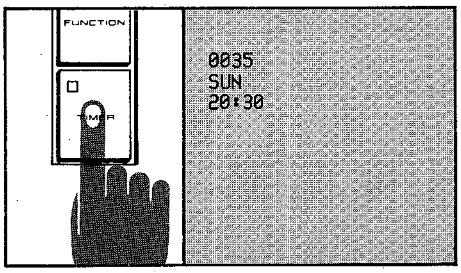


```
SLEEP
NOW 20:13
STOP 21:00
```

MEMORIZE

The procedure is now finished.
To follow the instruction "IF OK, MEMORIZE → C", depress the ▣ button to memorize the sleep time.
Once this operation has been completed, all the buttons will become inoperative.
* Don't forget to turn off the TV.
The Akai VCR will stop recording and turn itself off at the programmed sleep time.
To operate the Akai VCR again, depress the FUNCTION button. Its indicator will turn on.

To cancel sleep time operation during sleep time recording

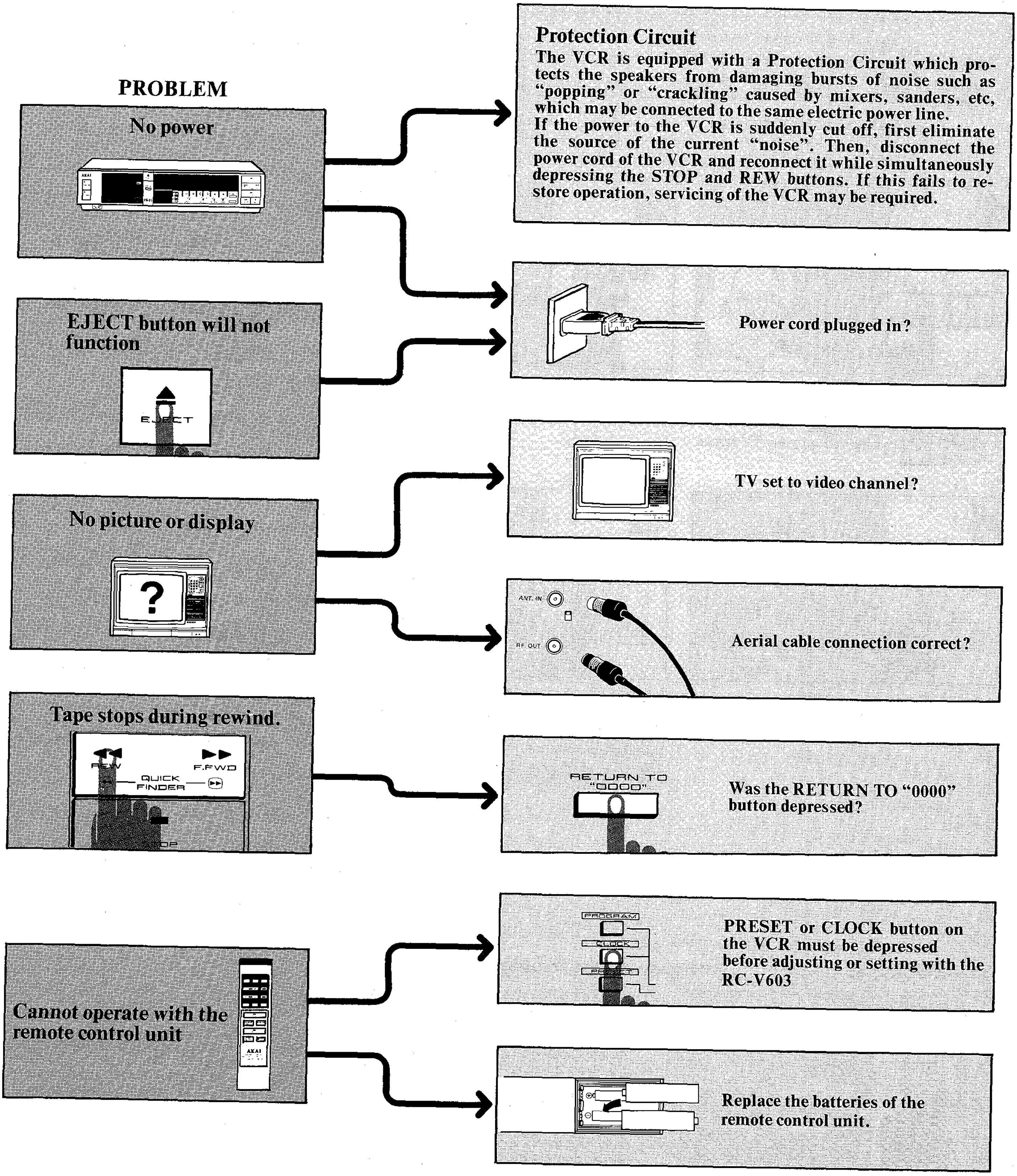


```
0035
SUN
20:30
```

Depress the TIMER button. The sleep time operation will be canceled and the VCR goes into normal recording mode.

- If the tape ends before the programmed sleep time, the tape will rewind to the beginning and stop. When the tape has stopped, sleep time operation will be cancelled but the Akai VCR will not turn itself off. Therefore make sure that the length of the tape is longer than the sleep time.
- If a sleep timer setting and a preprogrammed recording setting overlap, the preprogrammed recording will take priority over the sleep time setting. In other words, the pre-recorded program will take place as scheduled both interrupting the program set with the sleep timer and keeping the VCR from turning itself off.
- If a program is set for recording in the VCR's memory, when the sleep time program is finished, the VCR will automatically set itself to TIMER. If the preset program is to far in the future, depress the FUNCTION button to turn it off.

Problem? Let's check



CHECK POINT

Protection Circuit

The VCR is equipped with a Protection Circuit which protects the speakers from damaging bursts of noise such as "popping" or "crackling" caused by mixers, sanders, etc, which may be connected to the same electric power line.
If the power to the VCR is suddenly cut off, first eliminate the source of the current "noise". Then, disconnect the power cord of the VCR and reconnect it while simultaneously depressing the STOP and REW buttons. If this fails to restore operation, servicing of the VCR may be required.

PROBLEM

No power

Power cord plugged in?

EJECT button will not function

TV set to video channel?

No picture or display

Aerial cable connection correct?

Tape stops during rewind.

Was the RETURN TO "0000" button depressed?

PRESET or CLOCK button on the VCR must be depressed before adjusting or setting with the RC-V603

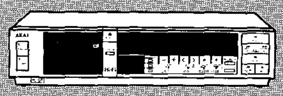
Cannot operate with the remote control unit

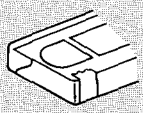
Replace the batteries of the remote control unit.

CHECK POINT

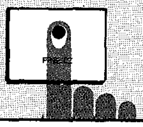
PROBLEM

No recording



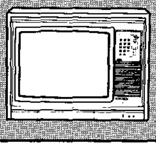


Recording defeat tab is broken.
Cover the opening with tape to record.

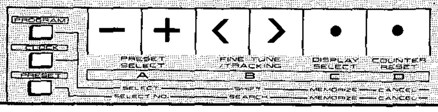


Recording button depressed after pause during stop.
Depress the REC (●) button again.

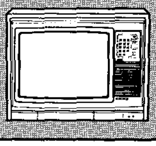
Automatic recording or sleep time operation will not take place.

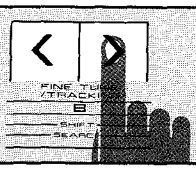


Refer to pages 15-17 for correct programming procedure.


PROGRAM
−
+
<
>
•
•
PRESET SELECT
FINE TUNE /TRACKING
DISPLAY SELECT
COUNTER RESET
A
B
C
D
SELECT
SHIFT
MEMORIZE
CANCEL

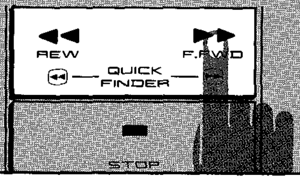
Disturbances in playback picture

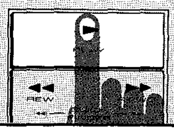



<
>
FINE TUNE /TRACKING
B
SHIFT
SEARCH

TRACKING

Quick finder will not function.

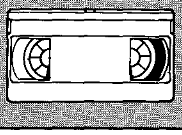

REW
F.FWD
QUICK FINDER
STOP

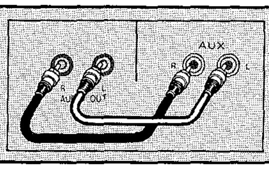


Is the VCR in playback mode?

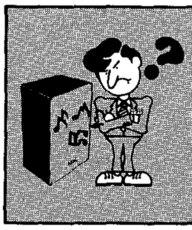
Only tapes marked VHS and recorded using the PAL system can be used with the Akai VCR. VHS tapes are available from your Akai dealer.

Concerning video cassette tape

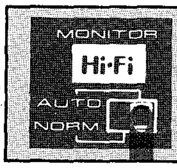




Amplifier turned on and properly connected?



Sound is funny during playback.


MONITOR
Hi·Fi
AUTO
NORM

Hi-Fi selector switch is not set correctly.

SECTION 2

SERVICE MANUAL

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For basic adjustments, measuring methods, and operating principles, refer to GENERAL TECHNICAL MANUAL.

I. SPECIFICATIONS

1-1. SPECIFICATIONS (VS-603EG/EK/ES/EZ)

Format		VHS Standard
Video recording system		Rotary, slant azimuth two-head helical scan system
Rotary heads		4 video heads and 2 audio heads
RF input	EG	System B, G VHF: ch 2 to 12, UHF: ch 21 to 69
	EK	System I UHF: ch 21 to 69
	ES	System I VHF: ch 4 to 13, UHF: ch 21 to 69
	EZ	System B, G VHF: ch 1 to 10, UHF: ch 21 to 69
RF output	EG	System G type modulation UHF: ch 30 to 39 adjustable (preset ch 36)
	EK	System I type modulation UHF: ch 30 to 39 adjustable (preset ch 36)
	ES	System I type modulation UHF: ch 30 to 39 adjustable (preset ch 36)
	EZ	System B type modulation VHF: ch 2, 3 switchable (preset ch 3)
Recording (line input)		PAL, CCIR (System B, G, I)
Playback (line output)		PAL, CCIR (System B, G, I)
Video	Line input level	0.5 to 2.0 Vp-p/75 ohms, unbalanced
	Line output level	1.0 Vp-p/75 ohms, unbalanced
	S/N ratio	More than 43 dB
	Horizontal resolution	More than 250 lines (SP mode)
Audio (VHS HiFi : 2ch, LINEAR : 1ch)		
	Line input level	−8 dBm/50 kohms, unbalanced (309 mVrms) (−20 dBm at Recording level control max)
	Line output level	−6 dBm/1 kohms, unbalanced (388 mVrms)
	Dynamic range	More than 80 dB (VHS HiFi)
	S/N ratio	More than 70 dB (VHS HiFi) More than 40 dB (Linear track, SP mode)
	Frequency Response	20 to 20,000 Hz (VHS HiFi) 70 to 10,000 Hz (Linear track, SP mode)
	Wow & Flutter	Less than 0.005% WRMS (VHS HiFi)
Recording/Playback time		240 min. with E-240 cassette on SP mode 480 min. with E-240 cassette on LP mode
Tape speed	SP Mode	23.39 mm/sec
	LP Mode	11.695 mm/sec
Quick finder	SP Mode	Approx. 7 times normal speed
	LP Mode	Approx. 15 times normal speed
FF, REW time		Approx. 4 min. with E-180 cassette
Timer	Programs	8 programs/ 4 week and sleep timer
	Clock reference	Quartz crystal
Display		TV screen (Tape counter, Timer etc.)
Power requirements	EG	110V/220V AC, 50 Hz/60 Hz
	EK	200V/240V AC, 50 Hz
	ES	220V/250V AC, 50 Hz
	EZ	230V AC, 50 Hz
Power consumption		36W
Operating temperature		5°C to 40°C (41°F to 104°F)
Dimensions		440 (W) x 99 (H) x 368 (D) mm (17.3 x 3.9 x 14.5 inches)
Weight		10.0 kg (22.0 lbs)

RC-V603

System	Infrared pulse position modulation system
Carrier frequency	38 kHz ± 0.2 kHz
Range	More than 8 meters
Directivity	± 30° (at 4 meters)
Batteries	R6 (or AA, SUM-3) x 2 (3 volts)
Dimensions	42 (W) x 20 (H) x 165 (D) mm
Weight	60 g (without batteries)

1-2. SPECIFICATIONS (VS-606EA/EO)

Format		VHS Standard
Video recording system		Rotary, slant azimuth two-head helical scan system
Rotary heads		4 video heads and 2 audio heads
RF input	EA	System B, G with monaural or multiplexed 2 channel audio VHF: ch 0 to 5, 5A, 6 to 11, UHF: ch 21 to 69
	EO	System B, G with monaural or multiplexed 2 channel audio VHF: Low ch 2 to 4, S1 to S3 High ch M1 to M10, 5 to 12, U1 to U10 UHF: ch 21 to 69
RF output	EA	System B type modulation VHF: ch 0, 1 switchable (preset ch 1)
	EO	System G type modulation UHF: ch 30 to 39 adjustable (preset ch 36)
Recording (line input)		PAL, CCIR (System B, G, I)
Playback (line output)		PAL, CCIR (System B, G, I)
Video	Line input level	0.5 to 2.0 Vp-p/75 ohms, unbalanced
	Line output level	1.0 Vp-p/75 ohms, unbalanced
	S/N ratio	More than 43 dB
	Horizontal resolution	More than 250 lines (SP mode)
Audio (VHS HiFi : 2ch, LINEAR : 1ch)		
	Line input level	−8 dBm/50 kohms, unbalanced (309 mVrms) (−20 dBm at Recording level control max)
	Line output level	−6 dBm/1 kohms, unbalanced (388 mVrms)
	Dynamic range	More than 80 dB (VHS HiFi)
	S/N ratio	More than 70 dB (VHS HiFi) More than 40 dB (Linear track, SP mode)
	Frequency Response	20 to 20,000 Hz (VHS HiFi) 70 to 10,000 Hz (Linear track, SP mode)
	Wow & Flutter	Less than 0.005% WRMS (VHS HiFi)
Recording/Playback time		240 min. with E-240 cassette on SP mode 480 min. with E-240 cassette on LP mode
Tape speed	SP Mode	23.39 mm/sec
	LP Mode	11.695 mm/sec
Quick finder	SP Mode	Approx. 7 times normal speed
	LP Mode	Approx. 15 times normal speed
FF, REW time		Approx. 4 min. with E-180 cassette
Timer	Programs	8 programs/ 4 week and sleep timer
	Clock reference	Quartz crystal
Display		TV screen (Tape counter, Timer etc.)
Power requirements	EA	240V AC, 50 Hz
	EO	220V AC, 50 Hz
Power consumption		36W
Operating temperature		5°C to 40°C (41°F to 104°F)
Dimensions		440 (W) x 99 (H) x 368 (D) mm (17.3 x 3.9 x 14.5 inches)
Weight		10.0 kg (22.0 lbs)

1-3. SPECIFICATION (VS-607EO-G)

Format		VHS Standard
Video recording system		Rotary, slant azimuth two-head helical scan system
Rotary heads		4 video heads and 2 audio heads
RF input		System B, G with monaural or multiplexed 2 channel audio VHF: ch 2 to 4, 5 to 12, S1 to S10, S11 to S20, S21 to S25, UHF: ch 21 to 69
RF output		System G type modulation UHF: ch 30 to 39 adjustable (preset ch 36)
Recording (line input)		PAL, CCIR (System B, G, I)
Playback (line output)		PAL, CCIR (System B, G, I)
Video	Line input level	0.5 to 2.0 Vp-p/75 ohms, unbalanced
	Line output level	1.0 Vp-p/75 ohms, unbalanced
	S/N ratio	More than 43 dB
	Horizontal resolution	More than 250 lines (SP mode)
Audio (VHS HiFi : 2ch, LINEAR : 1ch)	Line input level	–8 dBm/50 kohms, unbalanced (309 mVrms) (–20 dBm at Recording level control max)
	Line output level	–6 dBm/1 kohms, unbalanced (388 mVrms)
	Dynamic range	More than 80 dB (VHS HiFi)
	S/N ratio	More than 70 dB (VHS HiFi) More than 40 dB (Linear track, SP mode)
	Frequency Response	20 to 20,000 Hz (VHS HiFi) 70 to 10,000 Hz (Linear track, SP mode)
	Wow & Flutter	Less than 0.005% WRMS (VHS HiFi)
Recording/Playback time		240 min. with E-240 cassette on SP mode 480 min. with E-240 cassette on LP mode
Tape speed	SP Mode	23.39 mm/sec
	LP Mode	11.695 mm/sec
Quick finder	SP Mode	Approx. 7 times normal speed
	LP Mode	Approx. 15 times normal speed
FF, REW time		Approx. 4 min. with E-180 cassette
Timer	Programs	8 programs/ 4 week and sleep timer
	Clock reference	Quartz crystal
Display		TV screen (Tape counter, Timer etc.)
Power requirements		220V AC, 50 Hz
Power consumption		36W
Operating temperature		5°C to 40°C (41°F to 104°F)
Dimensions		440 (W) x 99 (H) x 368 (D) mm (17.3 x 3.9 x 14.5 inches)
Weight		10.0 kg (22.0 lbs)

II. MANUAL RESETTING OF MICRO-COMPUTERS

2-1. MANUAL RESETTING OF MICRO-COMPUTERS

If the memory in a micro-computer is disturbed, the micro-computer might malfunction.
If this happens, reset the memory in the micro-computer manually (to clear the internal memory of the micro-computer), then the micro-computer will resume its correct functions.
Here's how to reset the micro-computers manually.

1) Pull out the AC power cord from the wall socket (or some other power source.)
2) Keep the REW and the STOP buttons on the front panel pressed.
3) Plug the AC power cord into the wall socket (or some other power source) and release the REW and the STOP buttons.

The models in this S/M are equipped with three micro-computers, namely the Operation, IMS and Syscon micro-computer. When the AC power is failed, for example in the case of a power cut or when the AC power cord is pulled out, the Ni-Cd batteries in the operation micro-computer and in the IMS micro-computer back up the contents of the RAM (Random Access Memory).
If the voltage of these batteries is sufficiently higher than the necessary value for back-up, the memory in the operation micro-computer and in the IMS is maintained, and the syscon micro-computer can be reset by the operation micro-computer.
If the micro-computers are not equipped with back-up batteries, or if the voltage is lower than the value required for back-up (less than about 2.0V), the contents of the RAM in the micro-computers cannot be maintained. In this case, all three micro-computers will be reset after the power is turned on again and the RAM is cleared.
However, if this does not happen because of external noise etc., the contents of the memory are disturbed and the micro-computers will not work or will malfunction. In this case, manual resetting of the micro-computers is required.

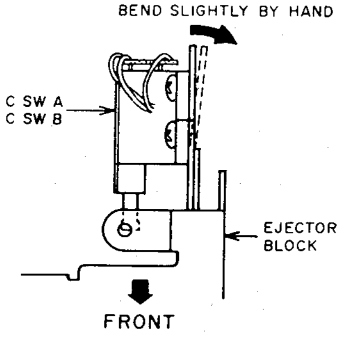
2-2. USEFUL INFORMATION (BREAK-DOWN)

This data refers to the situation where the unit does not functionable in spite of the FUNCTION SW being depressed after the power cord is plugged in (this condition called BREAK-DOWN).
This BREAK-DOWN system is designed for a protection of the tape in the unit and the unit itself from damage due to electrical malfunctions. Therefore check and confirm as follows to recover from BREAK-DOWN.

1. POWER SUPPLY
   1) POWER CORD
      Check that the power cord is properly plugged in. (When the POWER SUPPLY circuit functions normally, the STANDBY indicator on the FRONT PANEL is lit.)
   2) FUSE (on the POWER SUPPLY PCB)
      Check the FUSES F1, F2 on the POWER SUPPLY CIRCUIT. (Some models have another protection fuse on the SELECTOR PCB near the POWER TRANSFORMER).
   3) REGULATOR (on the POWER SUPPLY PCB)
      Check the voltage of the REGULATOR IC (IC1 STK5434) PIN ⑬ which should be around +3.5VDC.
   4) AL (on the POWER SUPPLY PCB)
      Check P107 ⑤ AL input which should be less than +0.2VDC.
2. MICRO-COMPUTER INPUT
   1) MECHA DRIVE I/O EXPANDER (on the MECHA DRIVE PCB)
      Check the IC1 (MB88305P) PIN ⑱ which should be around + 4.0VDC.
   2) SUPPLY/TAKE-UP BREAK COIL
      Check the SUPPLY and the TAKE-UP BREAK COIL DC resistance which should be 52 ohm ± 10%.
3. LOADING MOTOR FUNCTION
   1) LOADING MOTOR DC RESISTANCE
      Check the LOADING MOTOR DC resistance which should be 8.2 ohm ± 10%.
   2) LOADING MOTOR DRIVE (on the MECHA DRIVE PCB)
      Check the voltages between PIN ② and PIN ⑩ of IC5 (BA6229) a few moments after the POWER CORD has been plugged in. Before this check, the worm gear of the LOADING MOTOR has to be turned to the loaded direction (PLAY direction) by hand or by some other means.

CAUTION: Do not scratch the surface of the worm gear.

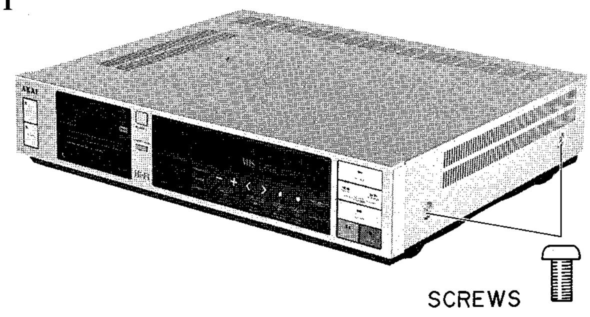
* NO TAPE EJECT
For situations where the CASSETTE TAPE can not be ejected in spite of the EJECT button being depressed (actually the CASSETTE TAPE comes up but then drops down), the position of the cassette switch A (C SW A) and the cassette SW B (C SW B) might be incorrect. Therefore the C SW A, B should be readjusted as indicated in the figure below.



III. DISMANTLING OF UNIT

In case of trouble, etc. necessitating dismantling, please dismantle in the order shown in the photographs. Reassemble in reverse order.

1



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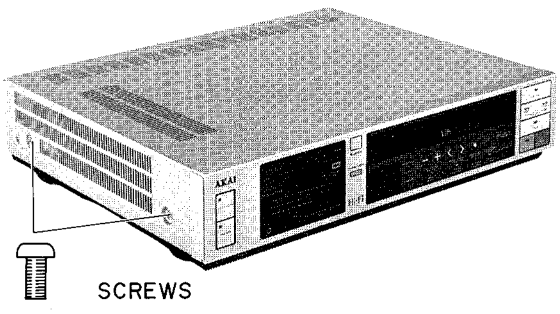
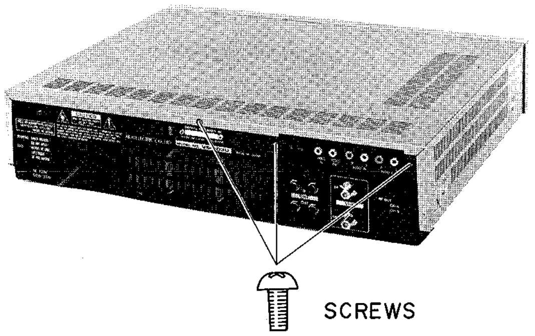


3



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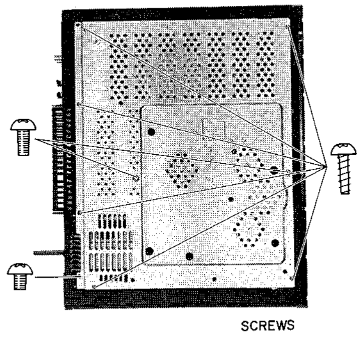
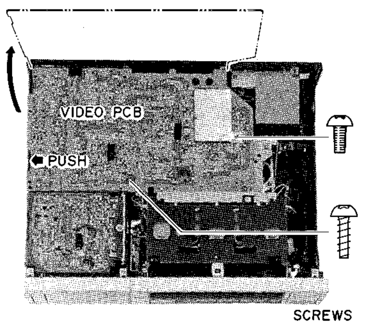
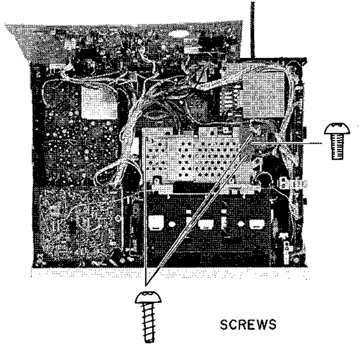


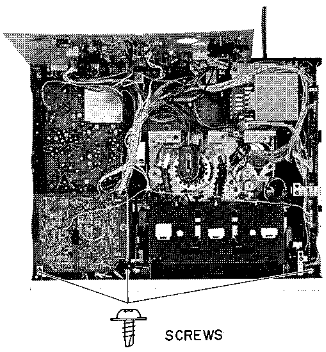
5


VIDEO PCB
PUSH
SCREWS

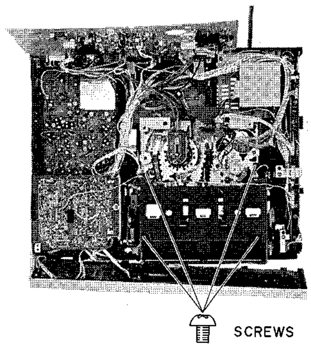
6



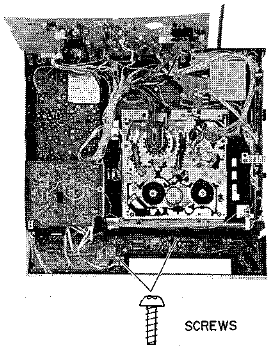
7



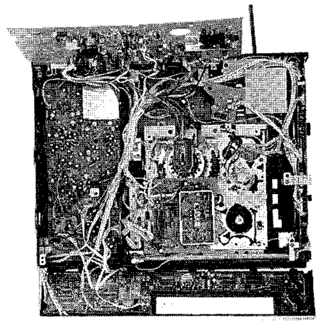
8



9



10



NOTE: Photographs employed in this paragraph is of the model VS-603U.

IV. CONTROLS

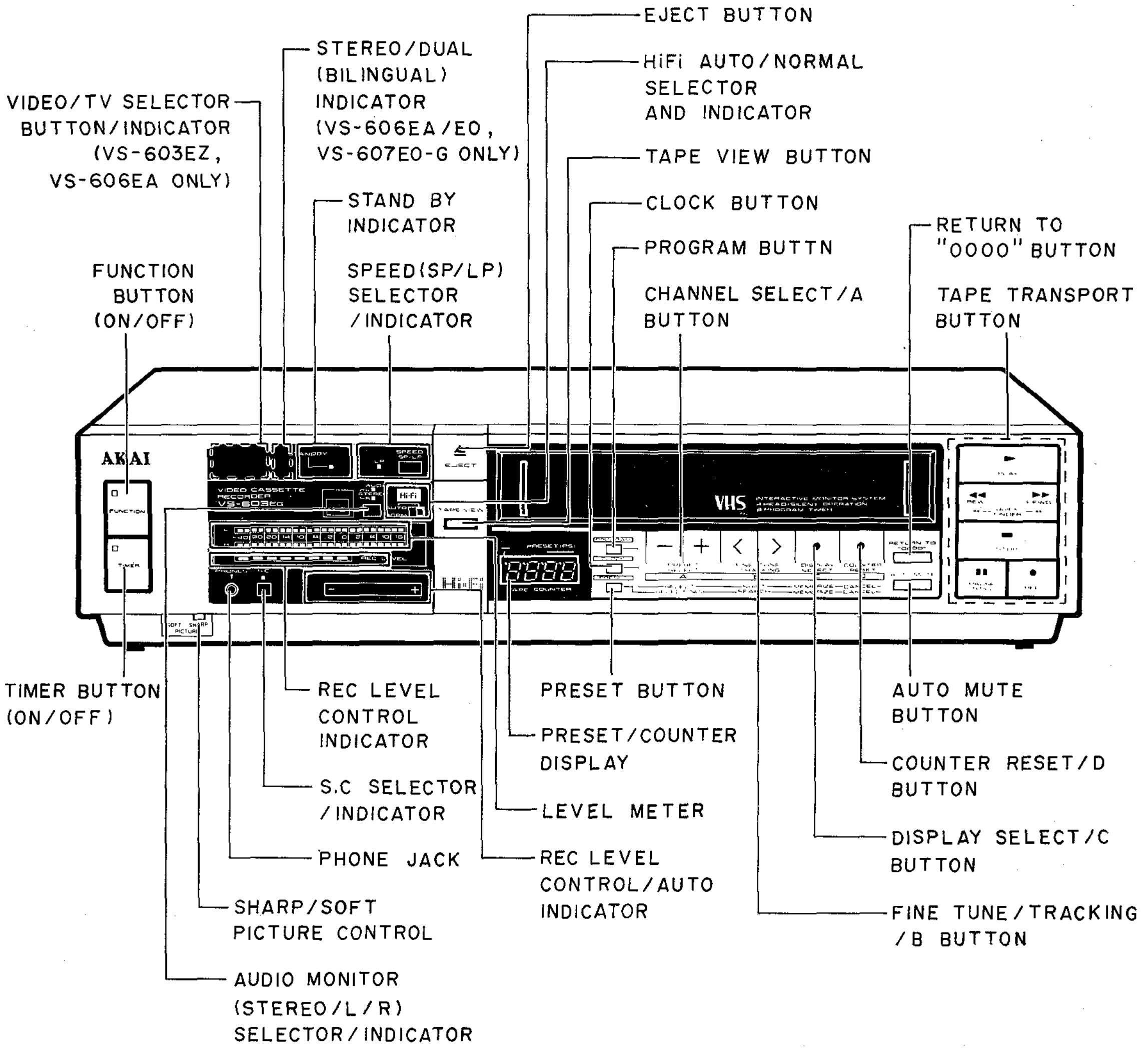

EJECT BUTTON
STEREO/DUAL (BILINGUAL) INDICATOR (VS-606EA/EO, VS-607EO-G ONLY)
HiFi AUTO/NORMAL SELECTOR AND INDICATOR
VIDEO/TV SELECTOR BUTTON/INDICATOR (VS-603EZ, VS-606EA ONLY)
TAPE VIEW BUTTON
STAND BY INDICATOR
CLOCK BUTTON
RETURN TO "0000" BUTTON
PROGRAM BUTTN
FUNCTION BUTTON (ON/OFF)
SPEED(SP/LP) SELECTOR /INDICATOR
CHANNEL SELECT/A BUTTON
TAPE TRANSPORT BUTTON
AKAI
VHS
TIMER BUTTON (ON/OFF)
REC LEVEL CONTROL INDICATOR
PRESET BUTTON
AUTO MUTE BUTTON
PRESET/COUNTER DISPLAY
COUNTER RESET/D BUTTON
S.C SELECTOR /INDICATOR
LEVEL METER
DISPLAY SELECT/C BUTTON
PHONE JACK
REC LEVEL CONTROL/AUTO INDICATOR
SHARP/SOFT PICTURE CONTROL
FINE TUNE/TRACKING /B BUTTON
AUDIO MONITOR (STEREO/L/R) SELECTOR/INDICATOR

Fig. 4-1

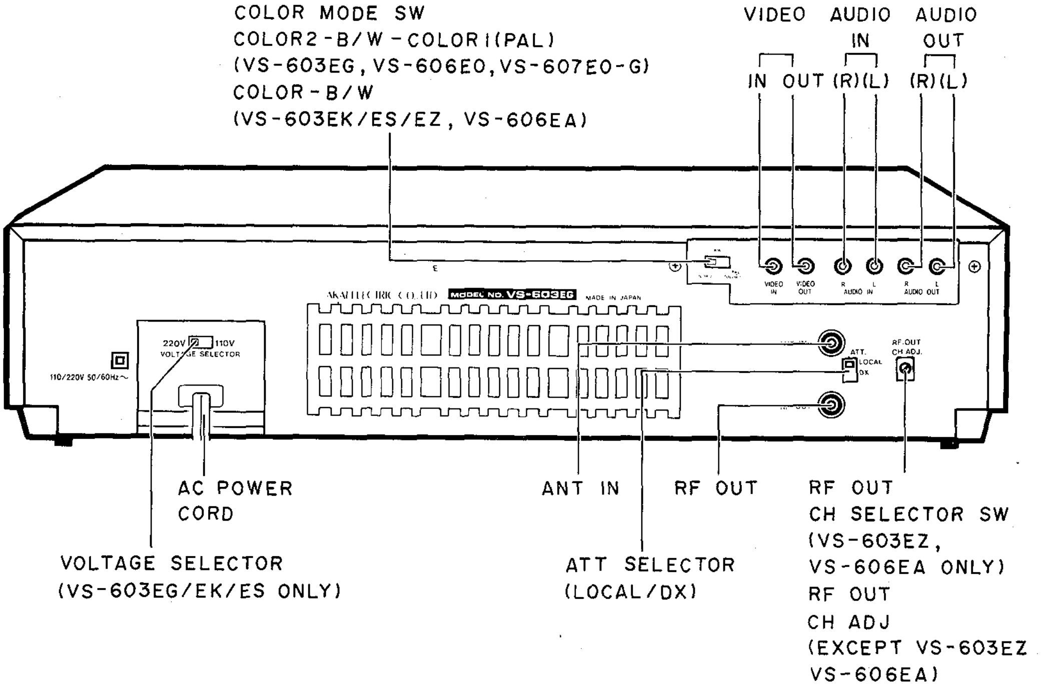

COLOR MODE SW
COLOR2-B/W-COLOR1(PAL)
(VS-603EG, VS-606EO, VS-607EO-G)
COLOR-B/W
(VS-603EK/ES/EZ, VS-606EA)
VIDEO
IN OUT
AUDIO IN
(R)(L)
AUDIO OUT
(R)(L)
MODEL NO. VS-603EG
MADE IN JAPAN
220V 110V
VOLTAGE SELECTOR
110/220V 50/60Hz
AC POWER CORD
ANT IN
RF OUT
RF OUT CH SELECTOR SW (VS-603EZ, VS-606EA ONLY)
RF OUT CH ADJ (EXCEPT VS-603EZ VS-606EA)
VOLTAGE SELECTOR (VS-603EG/EK/ES ONLY)
ATT SELECTOR (LOCAL/DX)

Fig. 4-2

V. PRINCIPAL PARTS LOCATION

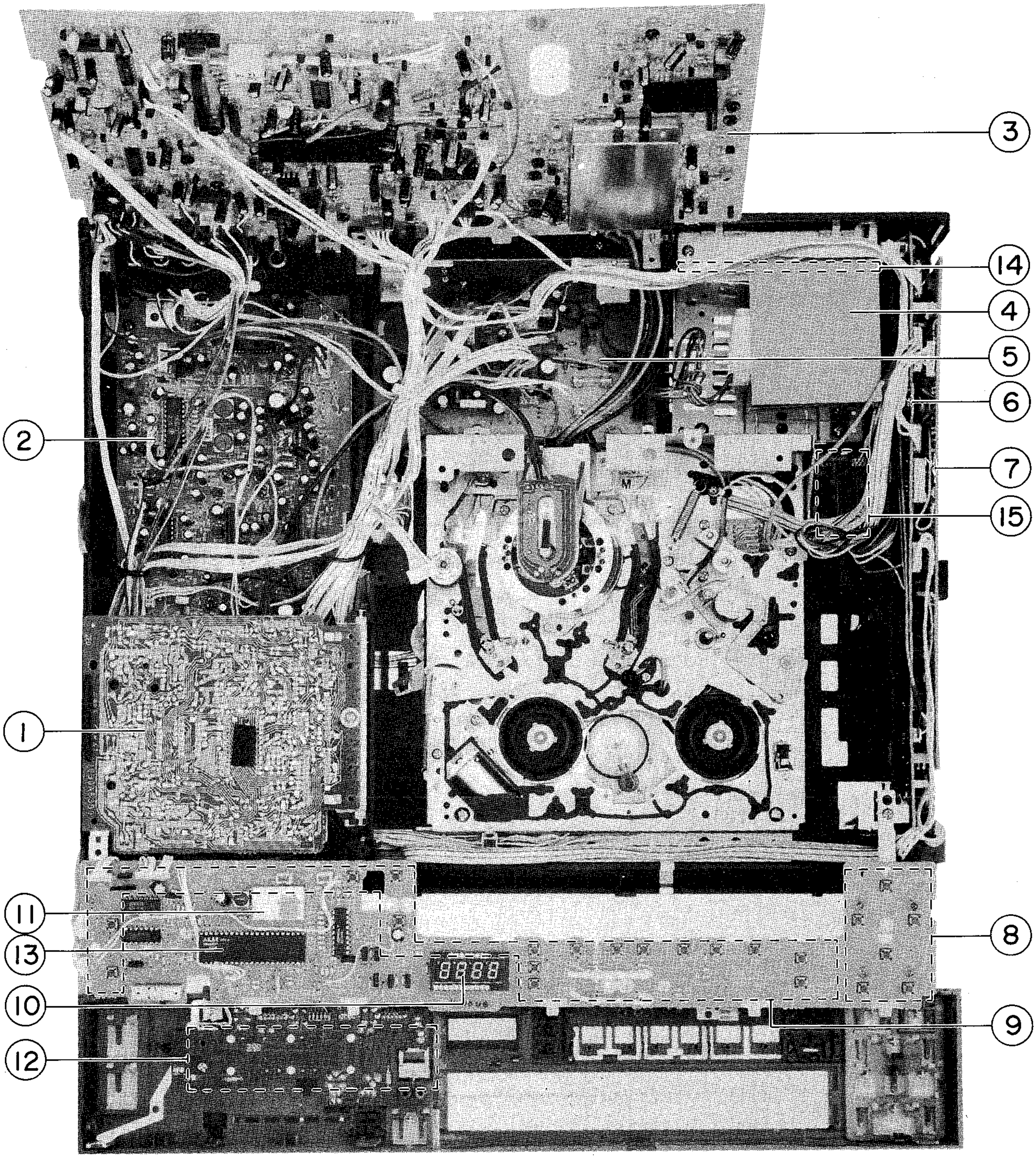
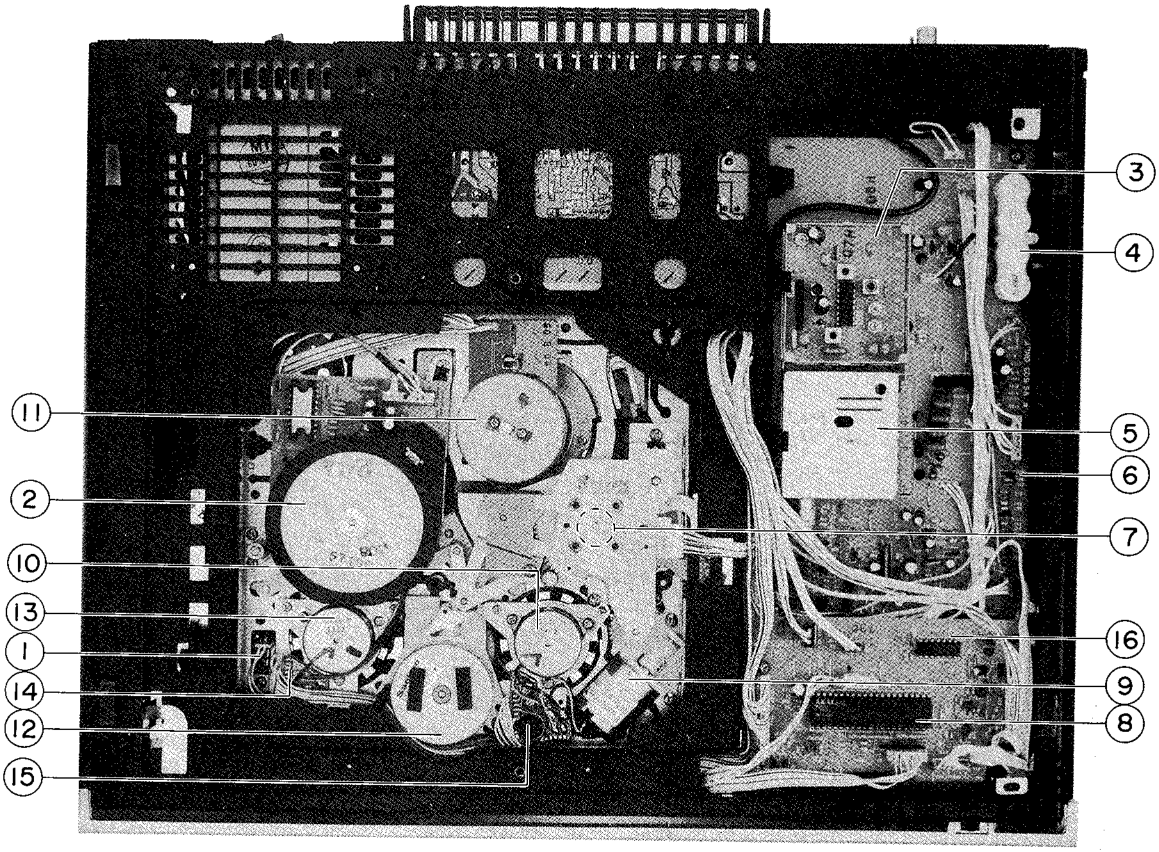


Fig. 5-1

1. MECHA DRIVE PC BOARD (V1030A5380)
2. HiFi AUDIO PC BOARD (V1030A5410)
3. VIDEO PC BOARD (V1030A5430)
4. POWER TRANSFORMER
5. POWER SUPPLY PC BOARD (V1030A5092)
6. SERVO (A) PC BOARD (V1030A542A)
7. SERVO (B) PC BOARD (V1030A542B)
8. TAPE TRANSPORT BUTTONS
9. FUNCTION ON/OFF, PROGRAM BUTTONS
10. PRESET/COUNTER DISPLAY
11. REMOTE CONTROL RECEIVER
12. LEVEL METER PC BOARD
13. OPERATION MICOM (MB88501-352M)
14. SELECTOR PC BOARD (V1027C5030, 5031, 5033, 5040, 5042)
15. SERVO SUB PC BOARD (V1030D5480)


3
4
11
5
6
2
7
10
13
16
1
9
14
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12
15

Fig. 5-2

1. CASSETTE SW & PC BOARD (V1030D5320) (C SW-C)
2. CAPSTAN MOTOR (M902) DD-XV021
3. VIF UNIT
4. BACK UP BATTERY
5. TUNER UNIT
6. DEMODULATOR PC BOARD(V1030A5051, 5440)
7. ROTARY ENCODER
8. IMS MICOM (MB88505-266M/285M/293M)
9. LOADING MOTOR (M903) MXN13AD12D
10. SUPPLY BRAKE
11. DRUM MOTOR (M901) SM-200 & PC BOARD (M3220C5010)
12. REEL MOTOR (M904) JME2B-K
13. TAKE UP BRAKE
14. SENSOR (T) PC BOARD (V1030D5020)
15. SENSOR (S) PC BOARD (V1030D5340)
16. SYSTEM CONTROL PC BOARD (V1030B5470)

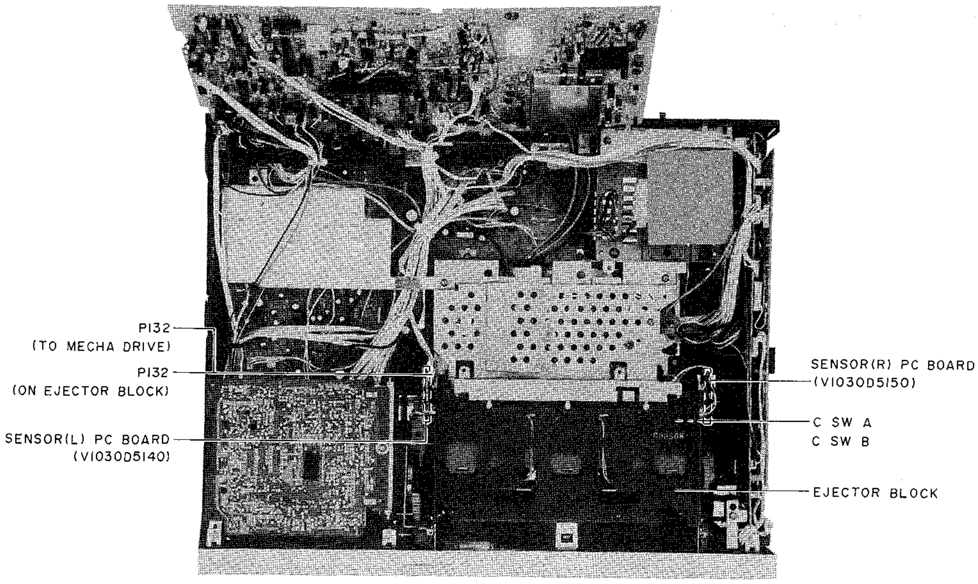

P132
(TO MECHA DRIVE)
P132
(ON EJECTOR BLOCK)
SENSOR(L) PC BOARD
(V1030D5140)
SENSOR(R) PC BOARD
(V1030D5150)
C SW A
C SW B
EJECTOR BLOCK

Fig. 5-3

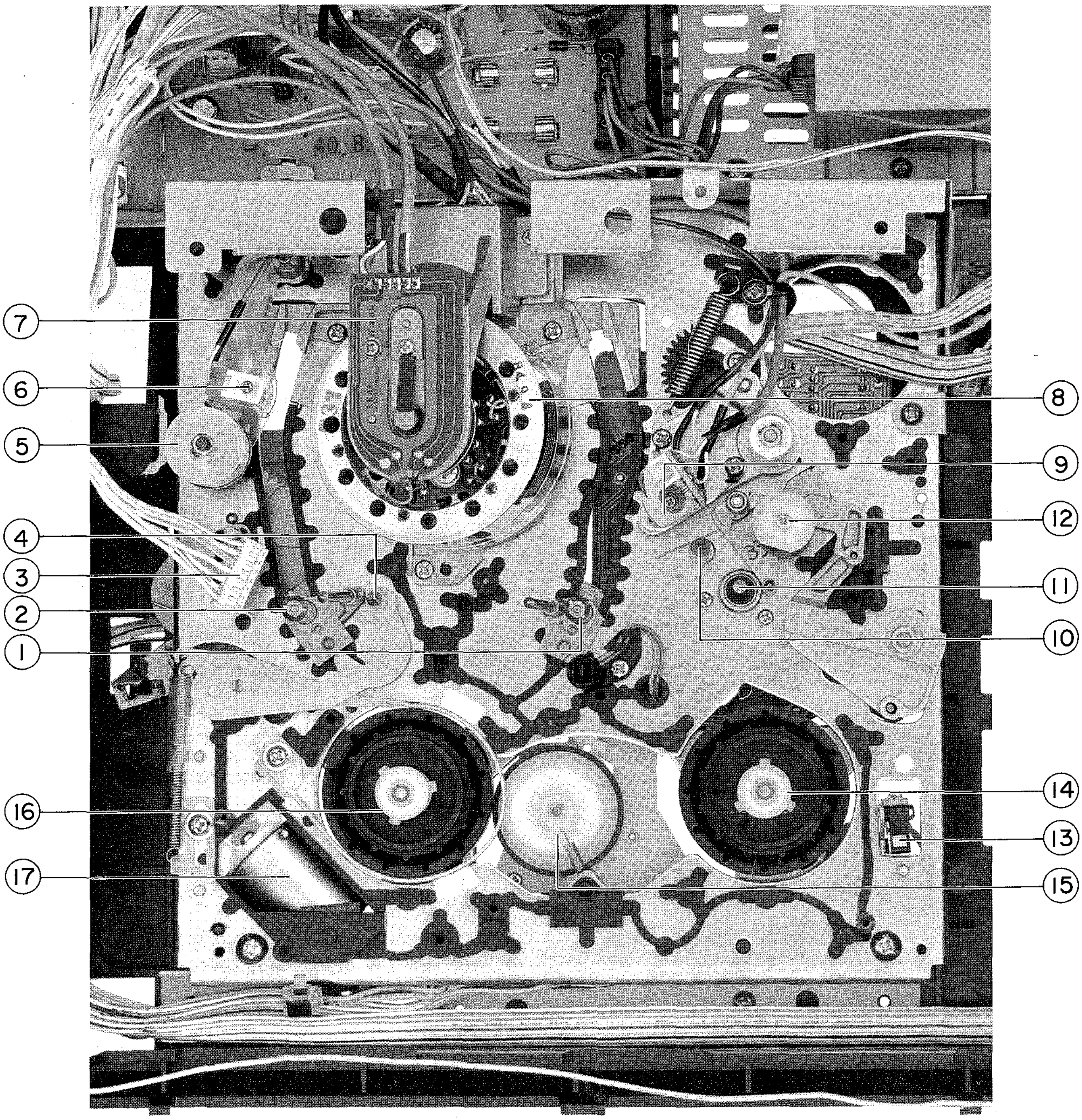


Fig. 5-4

1. LOADING LEADER (R)
2. LOADING LEADER (L)
3. J132 (CONNECTED WITH EJECTOR BLOCK)
4. TENSION ARM
5. IMPEDANCE GUIDE
6. FULL TRACK ERASE HEAD
7. STATOR COIL BLOCK
8. HEAD DRUM BLOCK
9. AUDIO (LINEAR) HEAD/CONTROL HEAD
10. TAPE GUIDE
11. CAPSTAN SHAFT
12. PINCH ROLLER
13. CASSETTE SW (C SW-C)
14. TAKE UP REEL TABLE
15. IDLER ARM
16. SUPPLY REEL TABLE
17. LOADING MOTOR (M903)

VI. MECHANICAL ADJUSTMENT

6-1. BEFORE THE ADJUSTMENT

The EJECTOR block has to be removed for mechanical adjustments. Consequently the J132 connected with P132 on EJECTOR block has to be disconnected, the unit does not function in this condition, to obtain the normal function without the EJECTOR block is as follows.

1) Disconnect J132 from P132 on the EJECTOR block.
2) Press the FUNCTION SW on the front panel.
3) Connect a dummy connector (the connector used to build this dummy connector is a plug 9P connector parts No. EJ-356347) to J132 as shown Fig. 6-1-2.
4) Press Cassette SW C in the vicinity of the TAKE-UP REEL while the dummy connector is connected to J132.
5) After the adjustments, press EJECT button then remove the dummy connector from J132.

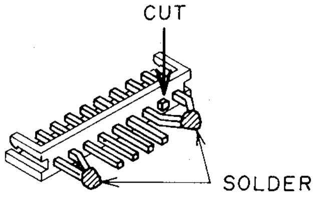


Fig. 6-1-1 Dummy Connector

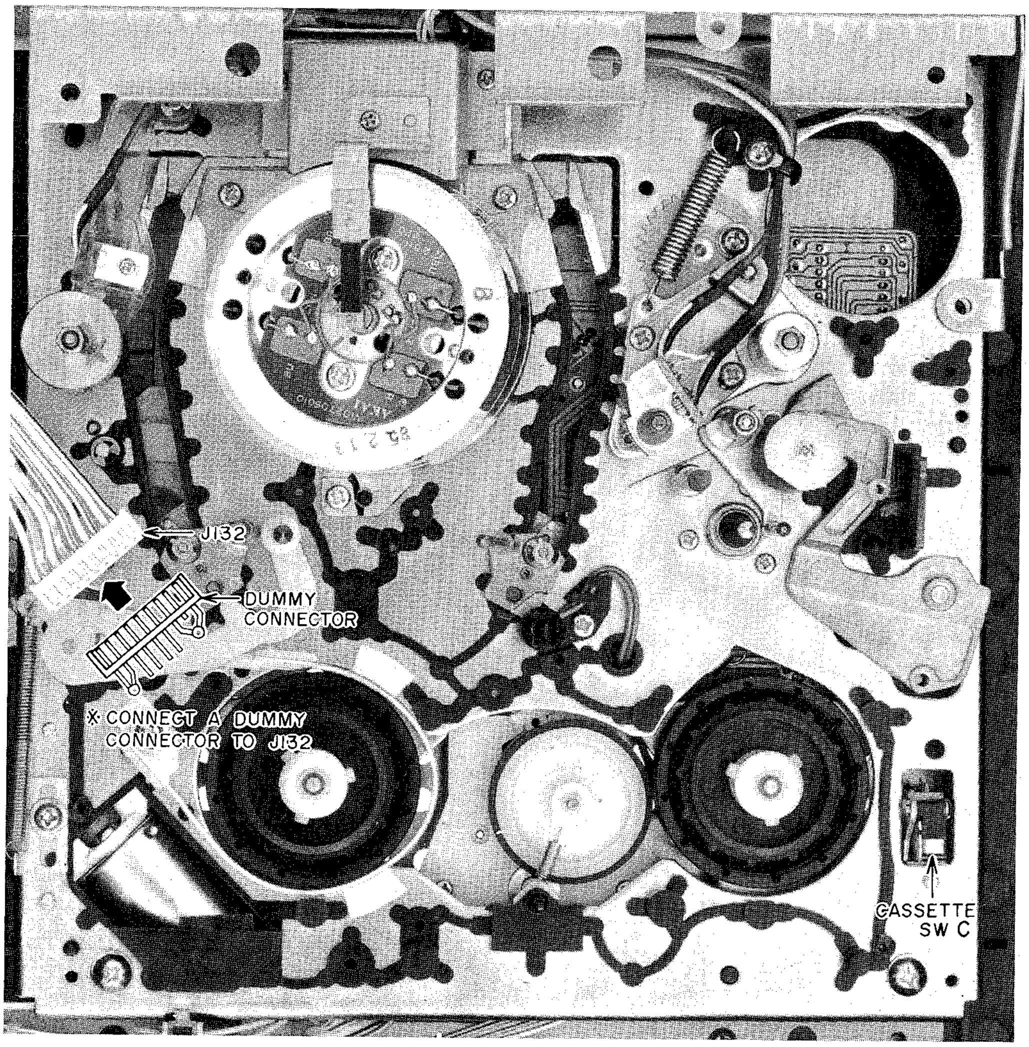


Fig. 6-1-2 Connection of Dummy Connector

6-2 CONFIRMATION OF REGULATOR OUTPUT

Check Items	Check Point	Result
IDL 5V	P108 4	5.1 ± 0.1V
IDL 12V	P105 8	12.0 ± 0.3V
AL 9V	P105 1	9.0 ± 0.1V
AL 16V	P108 6	16.0 ± 0.3V
UNREG 50V	P105 6	55V (Typical)

Chart 6-1

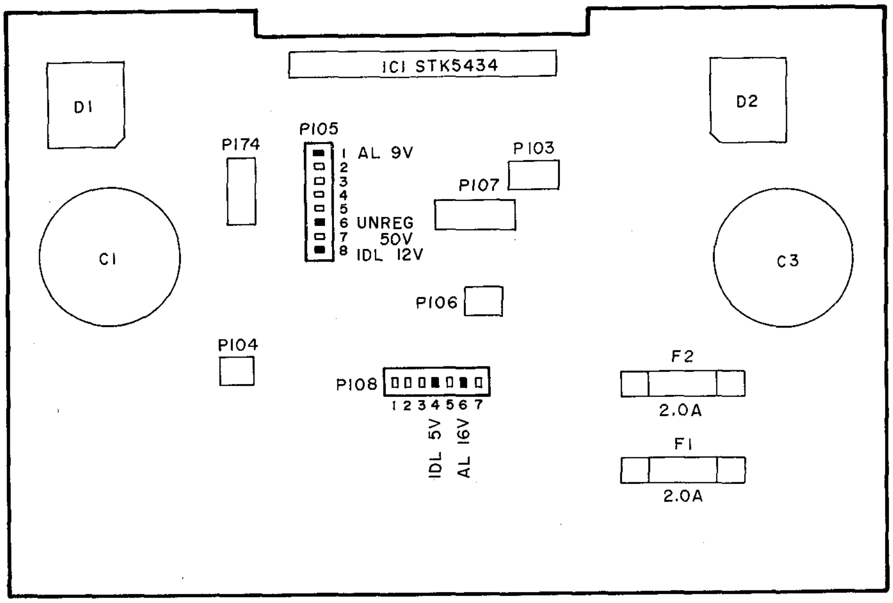

IC1 STK5434
D1
D2
P105
P174
1 AL 9V
2
3
4
5
6 UNREG 50V
7
8 IDL 12V
P103
P107
C1
C3
P106
P104
F2
P108
1 2 3 4 5 6 7
IDL 5V
AL 16V
2.0A
F1
2.0A

Fig. 6-2 POWER SUPPLY PCB V1030A5092

6-3. TAKE-UP REEL TORQUE ADJUSTMENT

1) Set a E-180 tape which has been rewound.
2) Press the PLAY button, check and adjust the voltage between IC6 PIN ⑩ (+) and IC6 PIN ② (–) on the MECHA DRIVE PC Board as 1.9 ± 0.1V by the VR3.

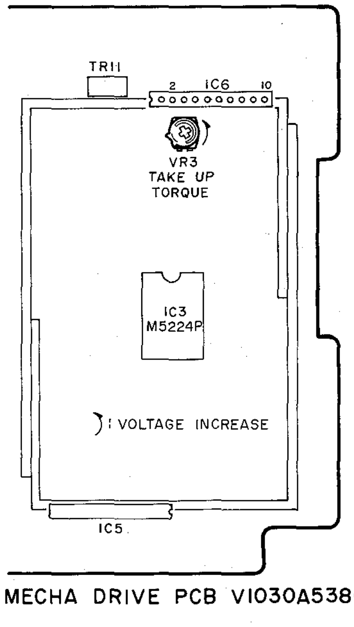

TR11
2
IC6
10
VR3
TAKE UP
TORQUE
IC3
M5224P
: VOLTAGE INCREASE
IC5
MECHA DRIVE PCB V1030A5380

Fig. 6-3 MECHA DRIVE PCB V1030A5380

6-4. BACK TENSION ADJUSTMENT

1) Set the Back Tension Jig (AT751181) and put some weight on the Back Tension Jig as a stabilizer.
2) Press the PLAY button, then check and adjust the back tension as 26 ± 4 g-cm by the TENSION HOLDER position.

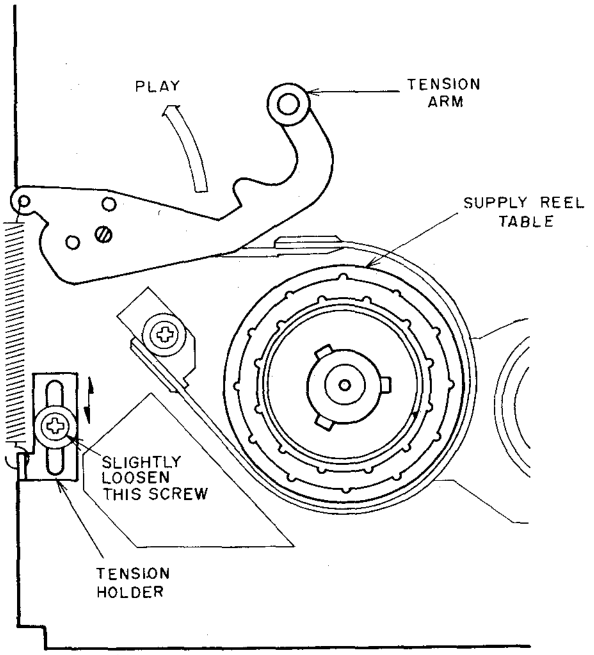

PLAY
TENSION ARM
SUPPLY REEL TABLE
SLIGHTLY LOOSEN THIS SCREW
TENSION HOLDER

Fig. 6-4

6-5. LOADING LEADER HEIGHT ADJUSTMENT

1) Slightly loosen the set screw at the lower part of the LOADING LEADER so that the LOADING LEADER can be adjusted with reasonable tightness. Adjust the coarse height of the LOADING LEADER from the base mount as 0.6 to 0.8 mm.
2) Set the reference tape AT-750795 (TF-508RF) and press the PLAY button.
3) Connect an oscilloscope to TP7 on the VIDEO PC Board (RF ENVELOPE), turn the LOADING LEADER height adjustment screw head to obtain the flat envelope as Fig. 6-5-2 ideal envelope.
   After the adjustment, tighten the LOADING LEADER set screw.

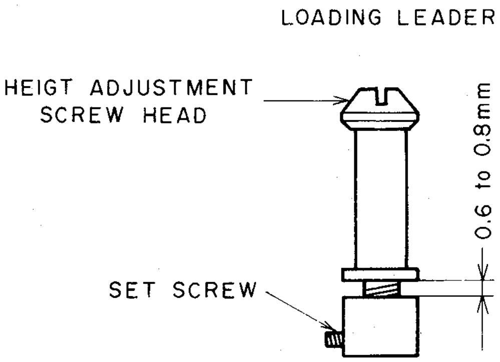

LOADING LEADER
HEIGT ADJUSTMENT SCREW HEAD
SET SCREW
0.6 to 0.8mm

Fig. 6-5-1

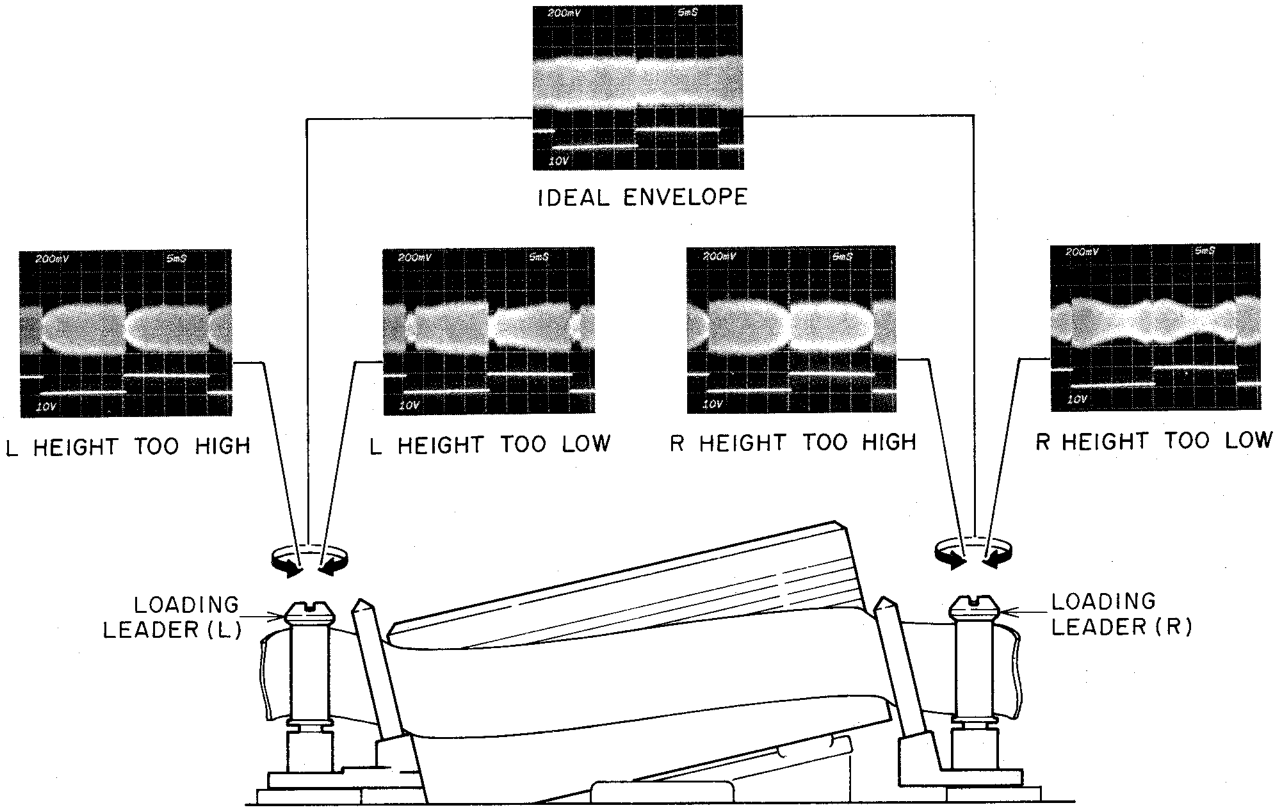

200mV
5mS
10V
IDEAL ENVELOPE
L HEIGHT TOO HIGH
L HEIGHT TOO LOW
R HEIGHT TOO HIGH
R HEIGHT TOO LOW
LOADING LEADER (L)
LOADING LEADER (R)

Fig. 6-5-2

6-6. TAPE CURL AT TAPE GUIDE ADJUSTMENT

Turn the screw ⓐ on the AC HEAD BLK so that the down edge of the tape touches the TAPE GUIDE lower part without any curl or waving.

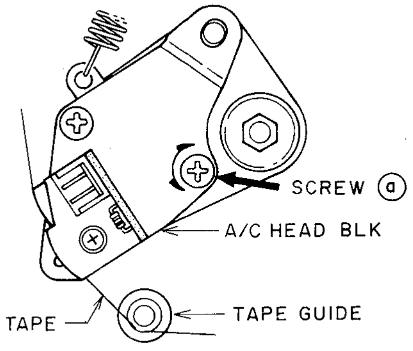

SCREW ⓐ
A/C HEAD BLK
TAPE
TAPE GUIDE

Fig. 6-6-1

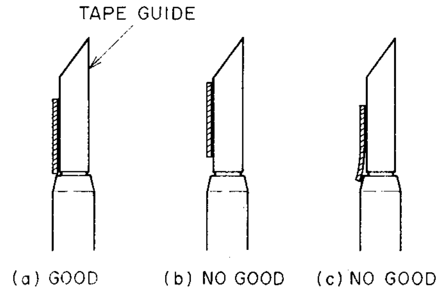

TAPE GUIDE
(a) GOOD
(b) NO GOOD
(c) NO GOOD

Fig. 6-6-2

6-7. AUDIO HEAD AZIMUTH ADJUSTMENT

1) Turn the nut ⓐ for coarse AC BLOCK height adjustment as in Figs. 6-7-1, & 6-7-2.

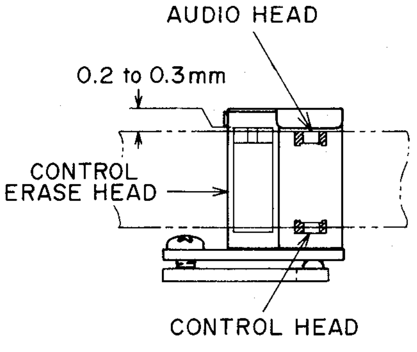

AUDIO HEAD
0.2 to 0.3mm
CONTROL ERASE HEAD
CONTROL HEAD

Fig. 6-7-1

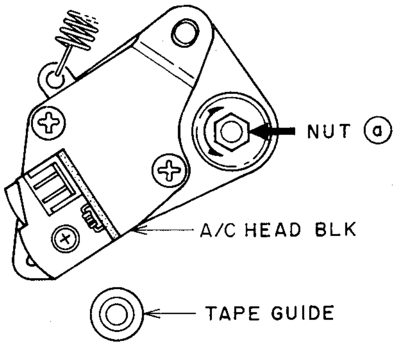

NUT ⓐ
A/C HEAD BLK
TAPE GUIDE

Fig. 6-7-2

2) Connect an oscilloscope or a AC voltmeter to the AUDIO LINE OUT.
3) Set the reference tape AT-750795 (TF-508RF) and press the PLAY button.
4) Turn the screw ⓑ shown in Fig. 6-7-3 to obtain the maximum audio signal output.

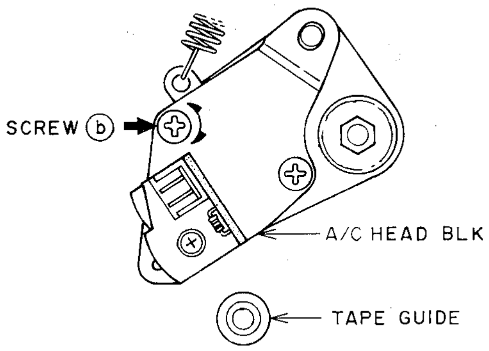

SCREW ⓑ
A/C HEAD BLK
TAPE GUIDE

Fig. 6-7-3

6-8. RF ENVELOPE ADJUSTMENT

1) Set the reference tape AT-750795 (TF-508RF) and press the PLAY button.
2) Slightly turn the LOADING LEADER HEIGHT ADJUSTMENT SCREW HEAD (L) (R) to obtain the IDEAL ENVELOPE as shown in Fig. 6-5-2.

6-9. TAPE CURL AT TAPE GUIDE/ IMPEDANCE GUIDE ADJUSTMENT

1) Check the tape curl at TAPE GUIDE, slightly turn the screw ⓐ shown in Fig. 6-6-1 if the tape curl exists.
2) Check the tape curl at the IMPEDANCE GUIDE, turn the nut ⓑ if the tape curl at the IMPEDANCE GUIDE exists.

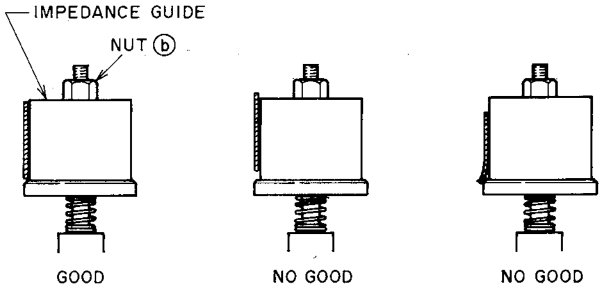

IMPEDANCE GUIDE
NUT ⓑ
GOOD
NO GOOD
NO GOOD

Fig. 6-9

6-10. AUDIO HEAD HEIGHT ADJUSTMENT

1) Connect an oscilloscope or a AC voltmeter to the LINE AUDIO OUT.
2) Set the reference tape AT-750795 (TF-508RF) and press the PLAY button.
3) Slightly turn the nut ⓐ shown in Fig. 6-7-2 to obtain the maximum audio output.

6-11. CONTROL HEAD POSITION ADJUSTMENT

1) Connect an oscilloscope to the TP7 on the VIDEO PC BOARD (RF ENVELOPE).
2) Set the reference tape AT-750795 (TF-508RF) and press the PLAY button.
3) Press "B" button (TRACKING) on the front panel and set "X" mark to the center position.
4) Loosen the screw ⓒ and turn the CTL ADJUST CAM by a screw driver to obtain the maximum RF ENVELOPE, after this adjustment tighten the screw ⓒ.

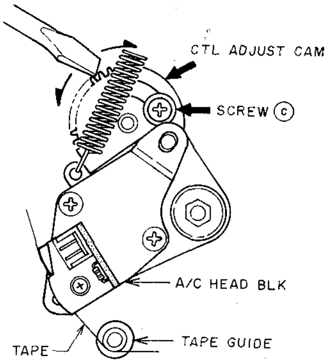

CTL ADJUST CAM
SCREW ⓒ
A/C HEAD BLK
TAPE
TAPE GUIDE

Fig. 6-11

6-12. CUE/REVIEW ADJUSTMENT

1) Set a E-180 tape, press the PLAY and the F.FWD button (CUE mode).
2) Turn the CUE/REVIEW GUIDE height adjustment nut ⓒ so that the wrinkle between the PINCH ROLLER and the CUE/REVIEW GUIDE is not existed.

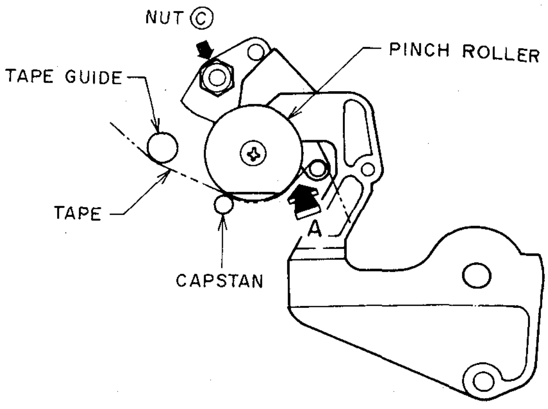

NUT ⓒ
PINCH ROLLER
TAPE GUIDE
TAPE
A
CAPSTAN

Fig. 6-12-1

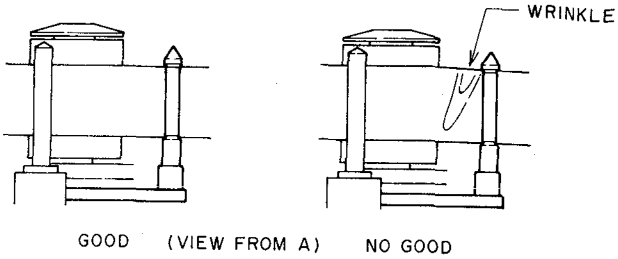

WRINKLE
GOOD
(VIEW FROM A)
NO GOOD

Fig. 6-12-2

3) Press the REV button (REVIEW mode) confirm the curl at the tape down edge is not existed at the TAPE GUIDE as shown in Fig. 6-6-2. (Fig. 6-6-2 (c) is not acceptable, but Fig. 6-6-2 (b) is acceptable.)
After the adjustment, tighten the nut ⓒ.

6-13. HOW TO ASSEMBLE LOADING MECHANISM

1) With the unit unloaded, attach Gear Loading (R) BLK and Gear Loading (L) BLK to Mecha chassis.

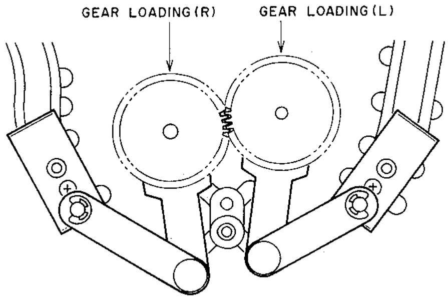

GEAR LOADING (R)
GEAR LOADING (L)

Fig. 6-13-1

2) Attach Holder Loading (B) Part to Mecha chassis and tighten with screw Ⓐ.

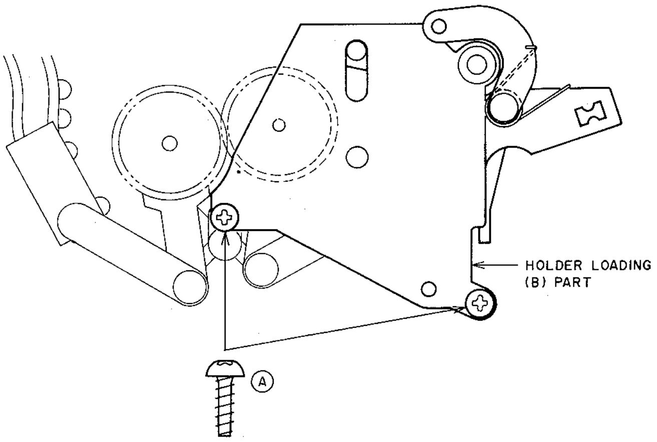

HOLDER LOADING (B) PART
Ⓐ

Fig. 6-13-2

3) Attach Lever Loading Gear Part to Holder Loading (B) Part so that part Ⓐ of Gear Loading (R) mates with the second tooth of Lever Loading Gear Part.

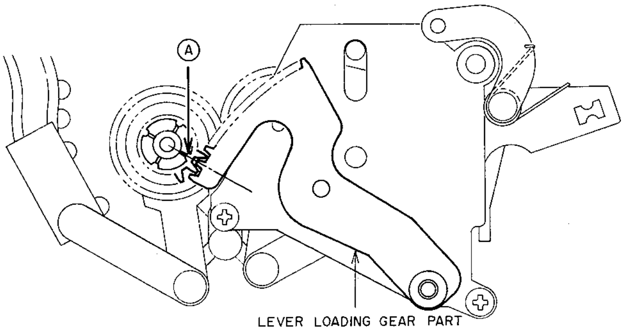

Ⓐ
LEVER LOADING GEAR PART

Fig. 6-13-3

4) Attach Main Gear to Holder Loading (B) so that a Round Hole Ⓐ faces upwards and insert E-ring into shaft slot.
Manually rotate Main Gear clockwise to confirm loading operation.

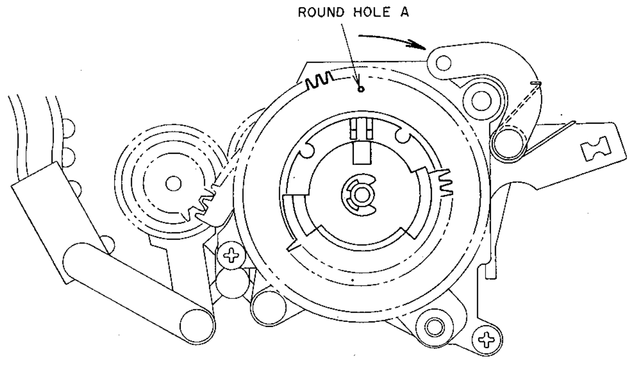

ROUND HOLE A

Fig. 6-13-4

5) Attach Gear Eject (A) part to Holder Loading (B) and insert E-ring into slot. Manually rotate Main Gear counterclockwise to confirm Eject operation.

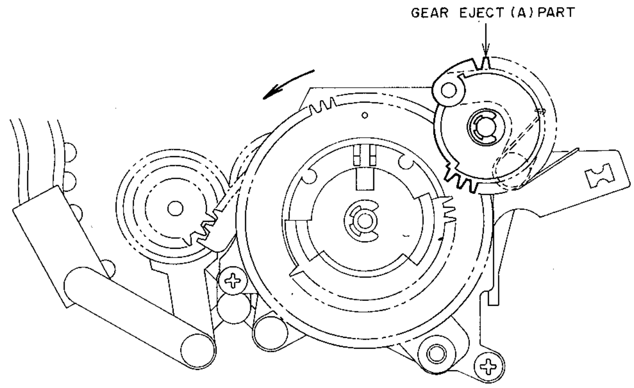

GEAR EJECT (A) PART

Fig. 6-13-5

6) Attach Lever Pinch Roller (A) to Mecha chassis so that pin Ⓐ goes into valley of Main Gear.

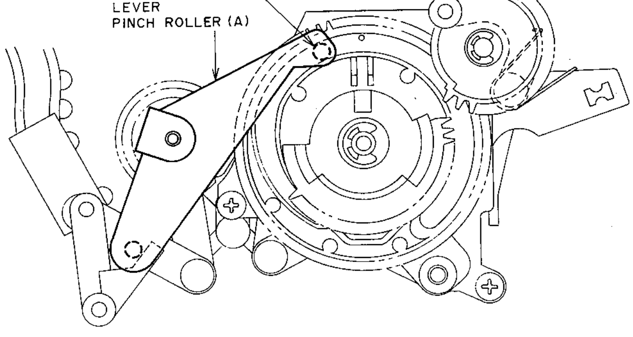

PIN A
LEVER PINCH ROLLER (A)

Fig. 6-13-6

7) Manually rotate Main Gear counterclockwise to drive unit into Eject state.

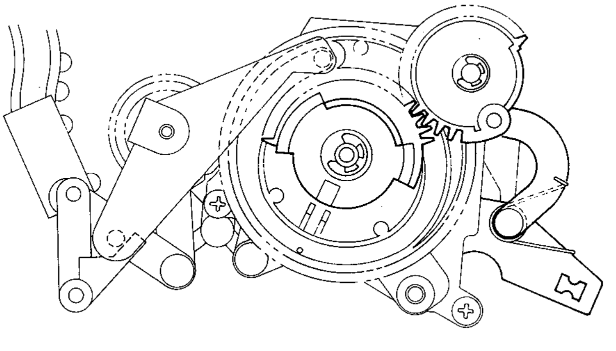


Fig. 6-13-7

8) Mount Gear relay onto Lever Loading Gear Part.

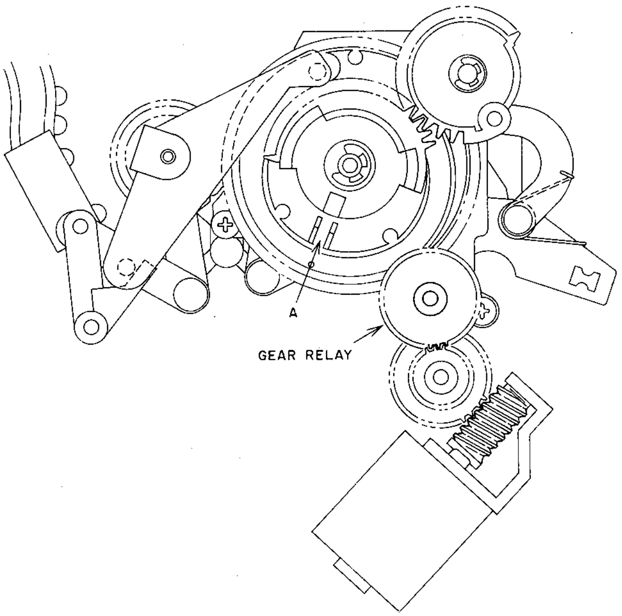


Fig. 6-13-8

9) Attach Holder Loading (A) BLK to Mecha chassis so that the latch of rotary encoder goes into slit A of Main Gear and tighten with screw Ⓑ.

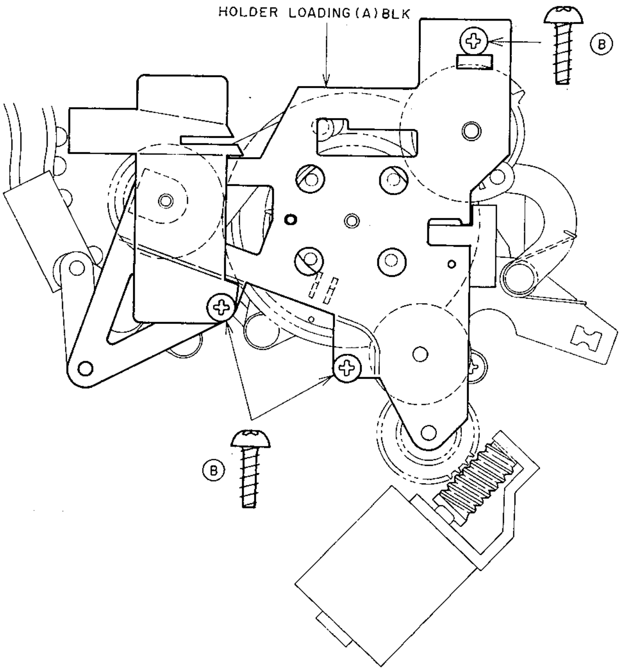


Fig. 6-13-9

VII. HEAD DRUM REPLACEMENT

7-1 REPLACEMENT PROCEDURE

1) Remove the Drum Shield Cover.
2) Remove the stator coil Block Fixing Screws.
3) Remove the Rotary coil set screw.
4) Unsolder the four wires connected between the Upper Drum Block and the Rotary Coil (A1: BRN, GRN A2: RED, GRN)
5) Remove the Upper Drum Fixing Screws.
6) Unsolder the eight wires from the Rotary Trans SP1: YLW, WHT SP2: YLW, BLK LP1: BLU, BRN LP2: BLU, RED)
7) Install the Upper Drum (Head Drum) and other parts in reverse order.

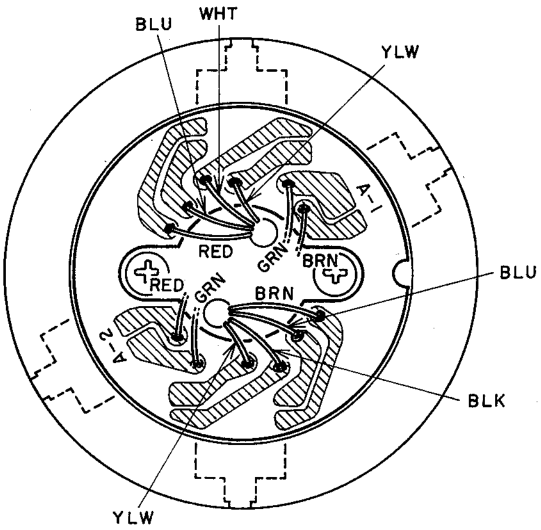


Fig. 7-1

NOTE: For the proper performance, height precision is required for the relative height of video and HiFi head, and the head tips are fragile, the following points should be noted when replacing the upper drum block.

(a) Before fixing, clean both surfaces where the upper drum and the rotary transformer part meet with alcohol.

(b) Tighten the two upper drum fixing screws alternately and gradually. Tighten them at 6 kg-cm torque.

(c) When installation of upper drum, if it does not go on to the shaft easily, clean the hole in the upper drum with alcohol and put a little oil on the shaft.

(d) Do not loosen the set screw on the collar preload.

(e) When removing the stator coil block, make sure that the stator coil block does not touch the head tips.

(f) Make sure that the upper drum fixing screw holes on the rotary transformer part and the upper drum fixing screw penetration holes match exactly before inserting the fixing screws.

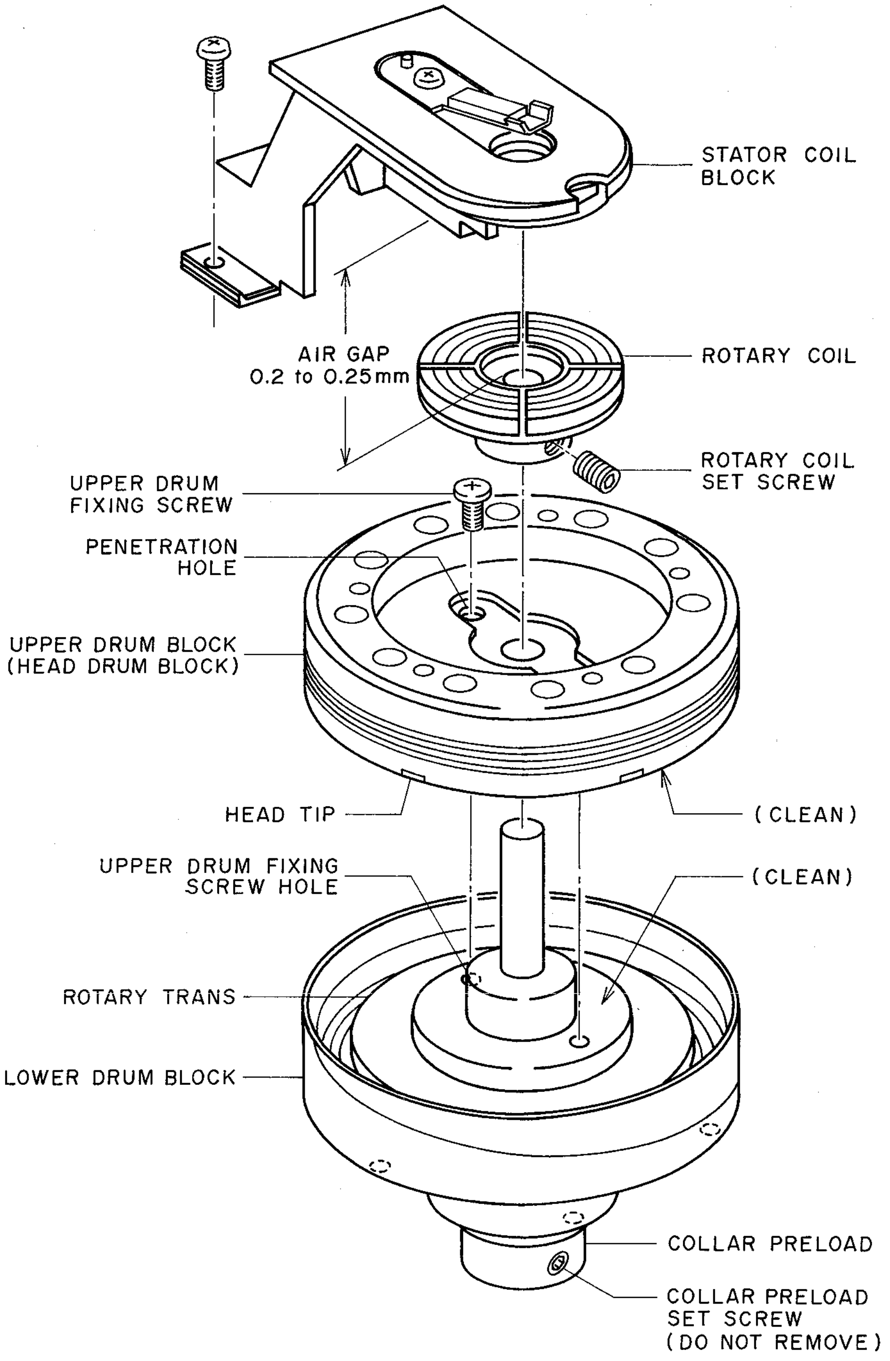

STATOR COIL BLOCK
AIR GAP 0.2 to 0.25mm
ROTARY COIL
ROTARY COIL SET SCREW
UPPER DRUM FIXING SCREW
PENETRATION HOLE
UPPER DRUM BLOCK (HEAD DRUM BLOCK)
HEAD TIP
(CLEAN)
UPPER DRUM FIXING SCREW HOLE
(CLEAN)
ROTARY TRANS
LOWER DRUM BLOCK
COLLAR PRELOAD
COLLAR PRELOAD SET SCREW (DO NOT REMOVE)

Fig. 7-2

7-2. AFTER REPLACEMENT

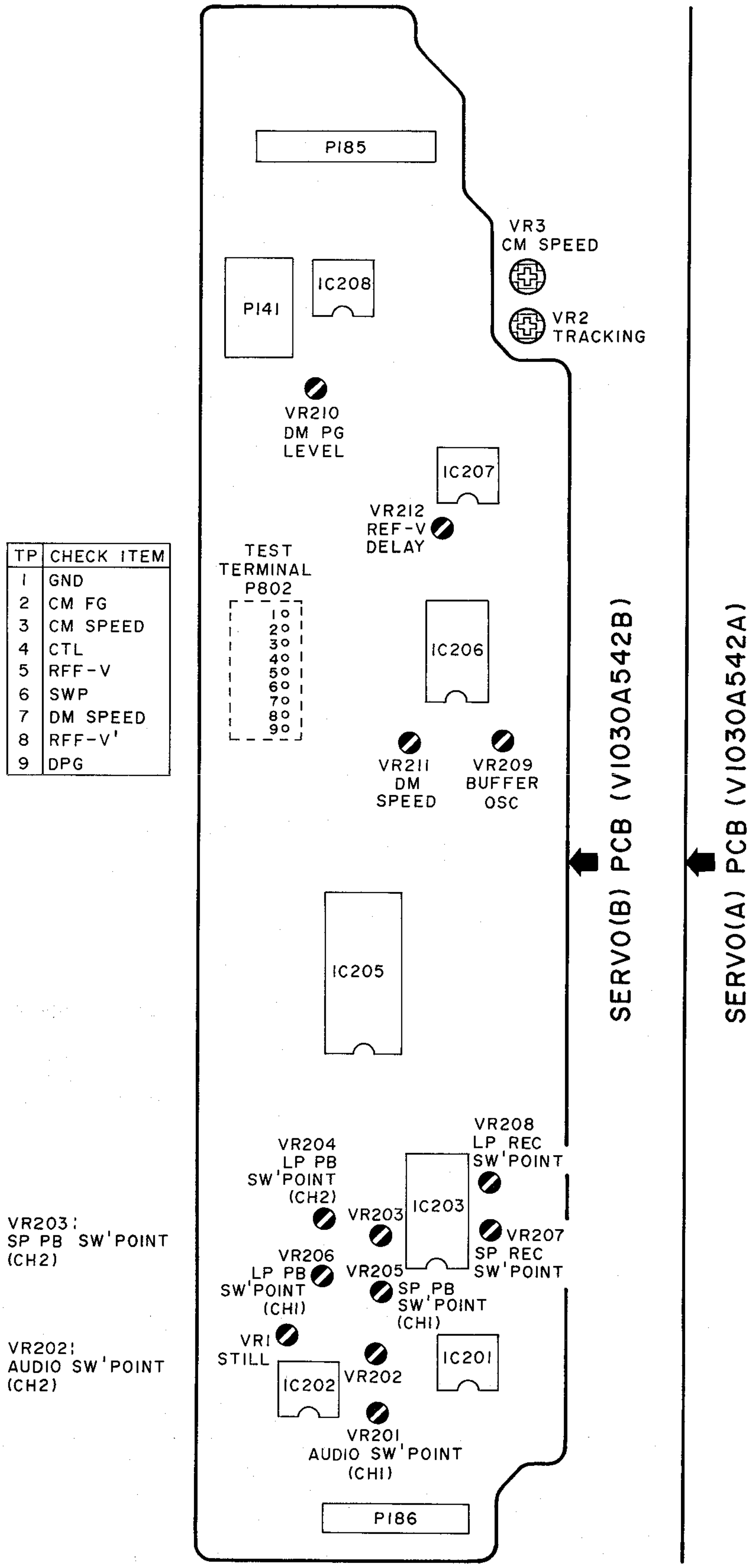
After replacement, the following adjustments and confirmations are necessary.

1) Confirmation of mechanical tracking (Control Head position adjustment 6-11).
2) PB switching point adjustment at SP/LP mode (Servo adjustment 8-1, in Step 7, 12).
3) REC switching point adjustment at SP/LP mode (Servo adjustment 8-1, in Step 8, 13).
4) Head peaking adjustment (Video adjustment 8-3, in Step 8).
5) REC current adjustment (Video adjustment 8-3, in Step 7).
6) FM REC current adjustment (HiFi Audio adjustment 8-2-1, in Step 3).
7) Audio Switching Point adjustment (HiFi Audio adjustment 8-2-1, in Step 6)
8) Confirmation of Y/C levels (Video adjustment 8-3, in Step 9, 11).
9) Confirmation of HiFi PB levels (HiFi Audio adjustment 8-2-1, in Step 4).

VIII. ELECTRICAL ADJUSTMENT

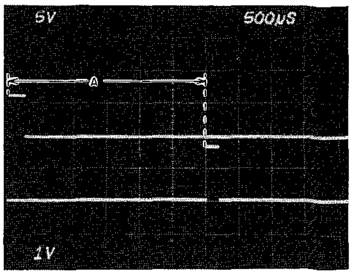
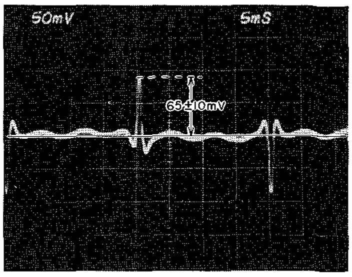
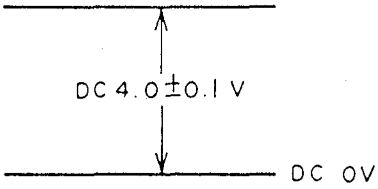
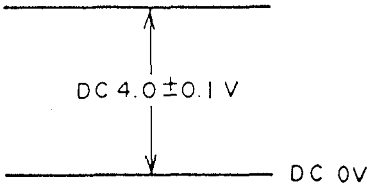
8-1. SERVO ADJUSTMENT

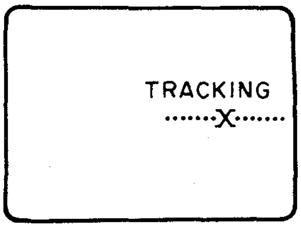
SERVO (A) PCB V1030A542A
SERVO (B) PCB V1030A542B


P185
VR3
CM SPEED
VR2
TRACKING
P141
IC208
VR210
DM PG
LEVEL
IC207
VR212
REF-V
DELAY
TEST
TERMINAL
P802
1
2
3
4
5
6
7
8
9
IC206
VR211
DM
SPEED
VR209
BUFFER
OSC
SERVO(B) PCB (V1030A542B)
SERVO(A) PCB (V1030A542A)
IC205
VR208
LP REC
SW'POINT
VR204
LP PB
SW'POINT
(CH2)
VR203
IC203
VR207
SP REC
SW'POINT
VR203:
SP PB SW'POINT
(CH2)
VR206
LP PB
SW'POINT
(CH1)
VR205
SP PB
SW'POINT
(CH1)
VR1
STILL
IC201
VR202:
AUDIO SW'POINT
(CH2)
IC202
VR202
VR201
AUDIO SW'POINT
(CH1)
P186

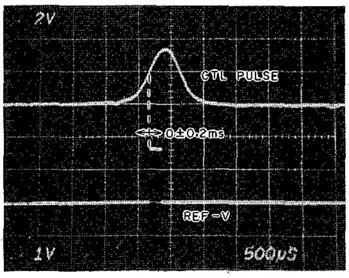
TP	CHECK ITEM
1	GND
2	CM FG
3	CM SPEED
4	CTL
5	RFF-V
6	SWP
7	DM SPEED
8	RFF-V'
9	DPG

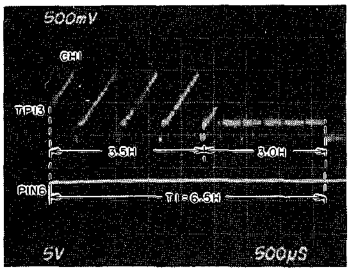
Fig. 8-1 SERVO PCB ADJ Points

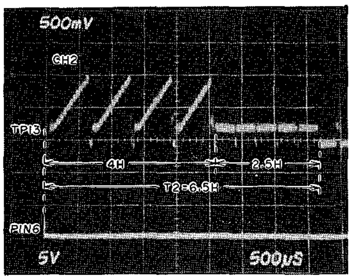
Step	Adjustment Item	Input Signal or Test Tape	Mode	Test Point	Adjustment Parts	Result & Remarks
1	REF-V Delay	PAL/SECAM Reference Test Tape AT-750795 (TF-508RF)	SP PB	Test Terminal (Pin 5 & 8)	VR212	 ●Adjust VR212 so that A is 3.0 ± 0.1 msec as shown.
2	Drum Motor PG level	PAL/SECAM Reference Test Tape AT-750795 (TF-508RF)	SP PB	Test Terminal (Pin 9)	VR210	 ●Adjust VR210 so that the PG Level is within the levels shown above.
3	Drum Motor Speed	PAL/SECAM Reference Test Tape AT-750795 (TF-508RF)	SP PB	Test Terminal (Pin 7)	VR211	 ●Adjust VR211 so that the Drum Servo phase error voltage is within DC4.0 ± 0.1V.
4	Capstan Motor Speed	PAL/SECAM Reference Test Tape AT-750795 (TF-508RF)	SP PB	Test Terminal (Pin 3)	VR3	 ●Adjust VR3 so that the Capstan Servo phase error voltage is within DC4.0 ± 0.1V.
5	Capstan Motor FG	PAL/SECAM Reference Test Tape AT-750795 (TF-508RF)	SP PB	Test Terminal (Pin 2)	confirmation	●Connect a frequency counter to Test Terminal Pin 2, and confirm the frequency is within 1200±6Hz.

<table>
<tr><th>Step</th><th>Adjustment Item</th><th>Input Signal or Test Tape</th><th>Mode</th><th>Test Point</th><th>Adjustment Parts</th><th>Result & Remarks</th></tr>
<tr><td>6</td><td>Tracking Preset</td><td>PAL/SECAM Reference Test Tape AT-750795 (TF-508RF)</td><td>SP PB</td><td>Test Terminal (Pin 4) CTL pulse (Pin 8) REF-V′</td><td>VR2</td><td>


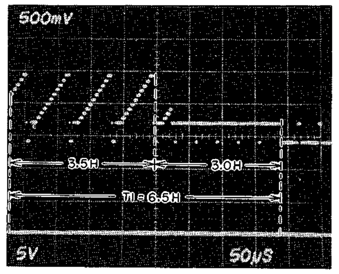
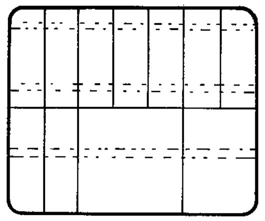
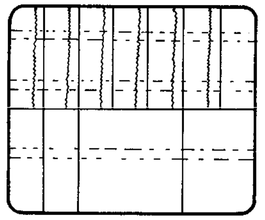
- Tracking marker "X" on the monitor screen is set to the center of the dotted line by pressing the TRACKING button on the front panel so that the

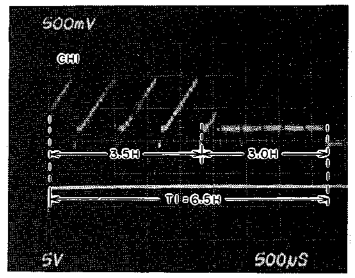
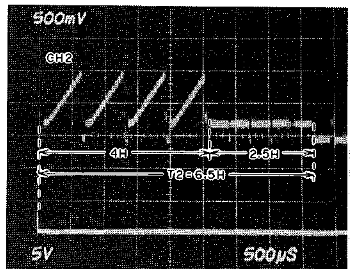
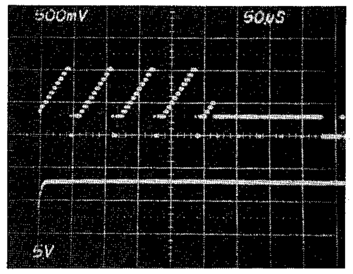


- Adjust VR2 so that the phase at raising part of CTL pulse and REF-V pulse are lined up.
</td></tr>
<tr><td>7</td><td>SP PB Switching Point</td><td>PAL/SECAM Reference Test Tape AT-750795 (TF-508RF)</td><td>SP PB</td><td>TP13 (Video PCB)
Test Terminal (Pin 6) for trigger</td><td>VR205 (CH-1)
VR203 (CH-2)</td><td>




- Adjust T1 with VR205, and T2 with VR203 to 6.5 ± 0.5H.
- The difference between T1 and T2 should be within 0.5H.
</td></tr>
</table>

Step	Adjustment Item	Input Signal or Test Tape	Mode	Test Point	Adjustment Parts	Result & Remarks
8	SP REC Switching Point	PAL Color Bar from Color Bar Generator	SP REC	TP13 (Video PCB) Test Terminal (Pin 6)	VR207	●Adjust T1 and T2 waveforms to 6.5 ± 0.5H, as the same manner in Step 7. 
9	Buffer OSC	PAL Color Bar Test Tape AT-750791 (TF-510CB)	SP REVIEW	Monitor TV	VR209	 CORRECT  INCORRECT ●Adjust VR209 so that color convergence on monitor TV is not blur.
10	LP Capstan Motor Speed	PAL/SECAM Reference Test Tape AT-751359 (TF-531RFL)	LP PB	Test Terminal (Pin 3)	Confirmation	●Confirm that the Capstan Servo error voltage is within DC 4.0 ± 0.1V.
11	LP Tracking Preset	PAL/SECAM Reference Test Tape AT-751359 (TF-531RFL)	LP PB	Test Terminal (Pin 4) CTL pulse (Pin 5) REF-V	Confirmation	●Confirm the Tracking Preset in Step 6 at LP mode.

Step	Adjustment Item	Input Signal or Test Tape	Mode	Test Point	Adjustment Parts	Result & Remarks
12	LP PB Switching Point	PAL/SECAM Reference Test Tape AT-751359 (TF-531RFL)	LP PB	TP13 (Video PCB) Test Terminal (Pin 6)	VR206 (CH-1) VR204 (CH-2)	  ●Adjust T1 with VR206, and T2 with VR204 to 6.5 ± 0.5H. ●The difference between T1 and T2 should be within 0.5H.
13	LP REC Switching Point	PAL Color Bar from Color Bar Generator	LP REC	TP13 (Video PCB) Test Terminal (Pin 6)	VR208	●Adjust T1 and T2 waveforms to 6.5 ± 0.5H, as the same manner in Step 12. 
14	STILL TRACKING	PAL/SECAM Reference Test Tape AT-750359 (TF-531RFL)	LP PB → PAUSE / STILL	Monitor TV	VR1 (on SERVO (A) PCB)	●Adjust VR1 only in the unsuccessful case that even after adjusted the STILL TRACKING on the Front Panel. ●Adjust VR1 so that the noise band is located within the 1/3 portion from the bottom of the TV screen.

8-2. AUDIO ADJUSTMENT

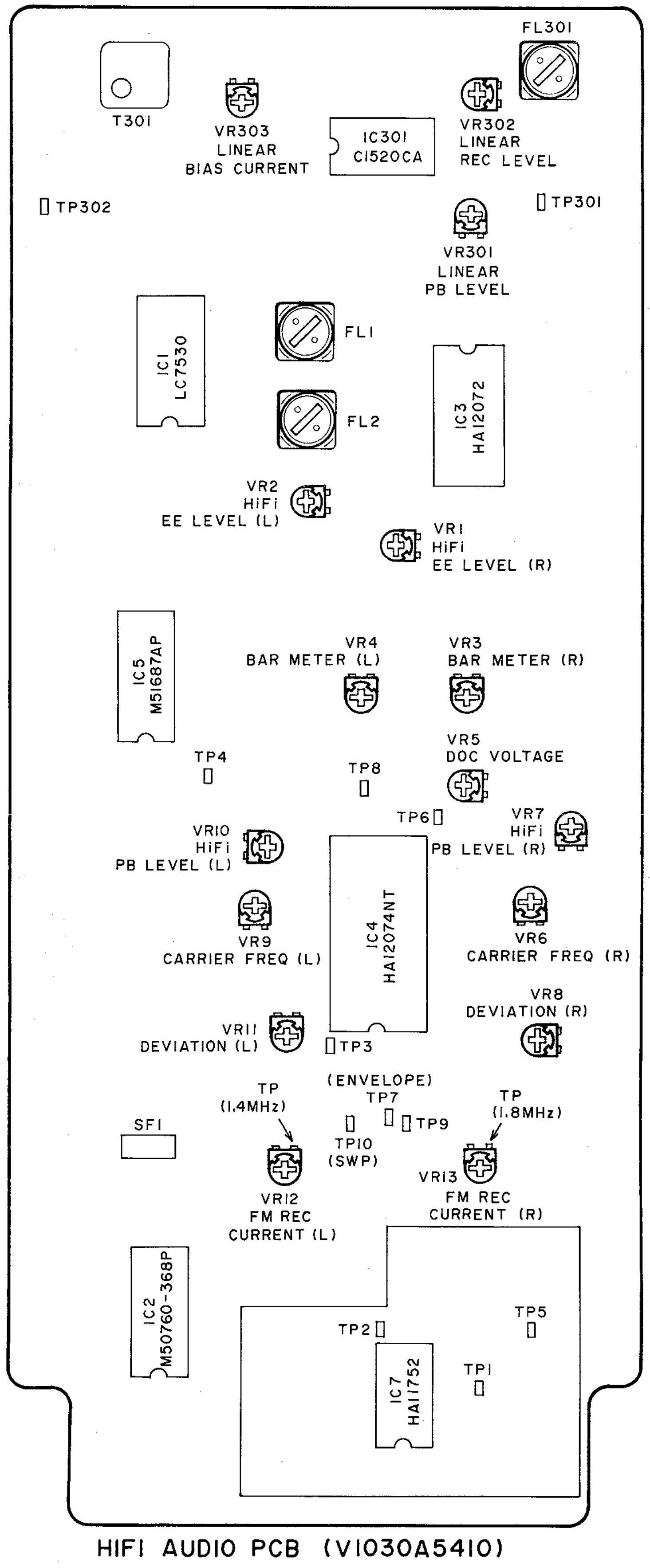
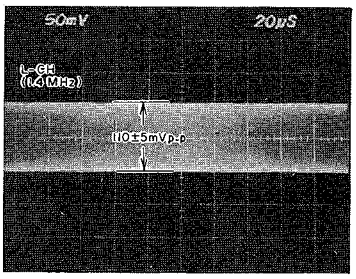
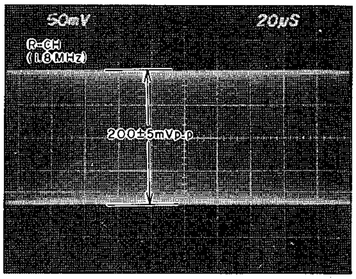
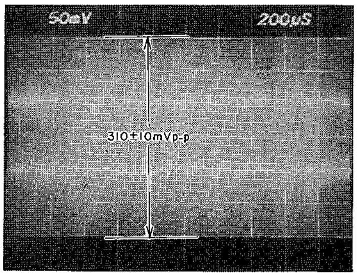
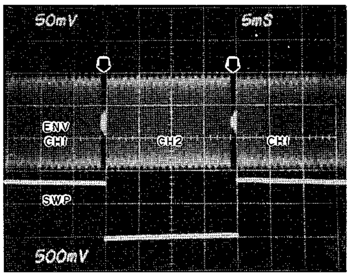
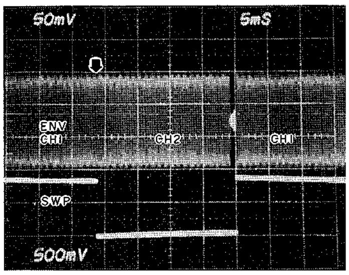
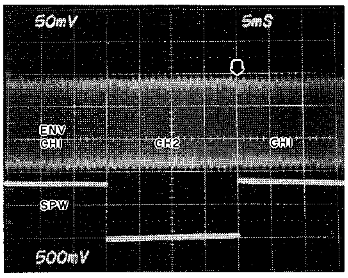

FL301
T301
VR303
LINEAR
BIAS CURRENT
IC301
CI520CA
VR302
LINEAR
REC LEVEL
TP302
TP301
VR301
LINEAR
PB LEVEL
IC1
LC7530
FL1
FL2
IC3
HA12072
VR2
HiFi
EE LEVEL (L)
VR1
HiFi
EE LEVEL (R)
IC5
M51687AP
VR4
BAR METER (L)
VR3
BAR METER (R)
VR5
DOC VOLTAGE
TP4
TP8
TP6
VR10
HiFi
PB LEVEL (L)
VR7
HiFi
PB LEVEL (R)
IC4
HA12074NT
VR9
CARRIER FREQ (L)
VR6
CARRIER FREQ (R)
VR8
DEVIATION (R)
VR11
DEVIATION (L)
TP3
(ENVELOPE)
TP
(1.4MHz)
TP7
TP9
TP
(1.8MHz)
SF1
TP10
(SWP)
VR13
VR12
FM REC
CURRENT (L)
FM REC
CURRENT (R)
IC2
M50760-368P
TP2
TP5
IC7
HA11752
TP1
HIFI AUDIO PCB (VI030A5410)

Fig. 8-2 HiFi AUDIO PCB ADJ Points

8-2-1. HiFi AUDIO ADJUSTMENT (Set the Monitor Selector to HiFi)

Step	Adjustment Item	Input Signal or Test Tape	Mode	Test Point	Adjustment Parts	Result & Remarks
1	HiFi EE Level	PAL Color Bar from Color Bar Generator & Audio 1kHz, –8dBm input	EE	Audio out (L-CH)	VR2 (L-CH)	1. Connect an AC voltmeter to Audio out (L-CH). 2. Adjust VR2 so that the voltmeter reads –6.0 dBm ± 0.5 dBm.
				Audio out (R-CH)	VR1 (R-CH)	1. Connect an AC voltmeter to Audio out (R-CH). 2. Adjust VR1 so that the voltmeter reads –6.0 dBm ± 0.5 dBm.
2	Carrier Frequency	PAL Color Bar from Color Bar Generator, No Audio input	EE	VR12 (L-CH) VR13 (R-CH) * See Fig. 8-2	VR9 (L-CH) VR6 (R-CH)	1. Short-circuit between TP3 and TP4 after the power is turned on. 2. Connect a frequency counter to VR12 (See Fig. 8-2). 3. Adjust VR9 so that the frequency counter reads 1.4 MHz ± 10 kHz. 4. Connect a frequency counter to VR13 (See Fig. 8-2). 5. Adjust VR6 so that the frequency counter reads 1.8 MHz ± 10 kHz.

Step	Adjustment Item	Input Signal or Test Tape	Mode	Test Point	Adjustment Parts	Result & Remarks
3	FM REC Current	PAL Color Bar from Color Bar Generator, No Audio input	SP REC	TP1	VR12 (L-CH) VR13 (R-CH)	1. Connect an oscilloscope to TP1. 2. Turn the VR13 fully clockwise (zero output-R CH). 3. Adjust the VR12 so that the TP1 is 110 ± 5 mVp-p.  4. Mark the position of the VR12 then turn VR12 fully counter-clockwise. (zero output-L/R CH) 5. Adjust the VR13 so that the TP1 is 200 ± 5 mVp-p.  6. Then turn the VR12 counter-clockwise until the same position as marked in item 4. 
4	HiFi PB Level	PAL COL. HiFi Test Tape AT-751360 (TF-532CBS)	LP PB	Audio out (L-CH)	VR10 (L-CH)	1. Connect an AC Voltmeter to Audio out (L-CH). 2. Adjust VR10 so that the Volt-meter reads −6.0 dBm ± 0.5 dBm.
				Audio out (R-CH)	VR7 (R-CH)	1. Connect an AC Voltmeter to Audio out (R-CH). 2. Adjust VR7 so that the Volt-meter reads −6.0 dBm ± 0.5 dBm.

Step	Adjustment Item	Input Signal or Test Tape	Mode	Test Point	Adjustment Parts	Result & Remarks
5	Deviation	PAL Color Bar from Color Bar Generator & 400Hz, –8dBm Audio Signal	SP REC/PB	Audio out	VR11 (L-CH) VR8 (R-CH)	1. Connect AC Voltmeter to Audio out. 2. Adjust VR11 (L-CH) and VR8 (R-CH), so that the AC Voltmeter Reads –6.0 ± 0.5 dBm.
6	Audio Switching Point	PAL Color Bar from Color Bar Generator & No Audio input	SP REC/PB	TP7 (Envelope) TP10 (SWP) for trigger	VR201 (CH-1) Servo (6)B PCB) VR202 (CH-2) (Servo (6)B PCB)	1. First, turn the VR201, VR202 so that the AUDIO FM ENVELOPE is not continuous.  2. Then turn the VR201 until the CH-1 FM ENVELOPE is continuous.  3. Turn the VR202 until the CH-2 FM ENVELOPE is continuous. 

Step	Adjustment Item	Input Signal or Test Tape	Mode	Test Point	Adjustment Parts	Result & Remarks
7	HiFi Distortion	PAL Color Bar from Color Bar Generator & Audio 1kHz, −8dBm input	SP REC/PB	Audio out (L-CH) (R-CH)	Confirmation	Less than 0.5%
8	DOC Voltage	PAL Color Bar from Color Bar Generator & Audio 1kHz, −8dBm input	SP REC/PB	TP6	VR5	1. Connect a Digital Voltmeter to TP6. 2. Adjust VR5 so that the Voltmeter reads 3.2 ± 0.1VDC.
9	Frequency Response	PAL Color Bar from Color Bar Generator & Audio 100Hz, 200Hz, −7kHz, 10kHz, 15kHz −28dBm input	SP REC/PB	Audio out	Confirmation	100 Hz : −26 ± 2 dBm 200 Hz to 7 kHz : −26 ± 1 dBm 10 kHz : −26 ± 2 dBm 15 kHz : −26 ± 3 dBm

8-2-2. LINEAR AUDIO ADJUSTMENT (Set the Monitor Selector to Normal)

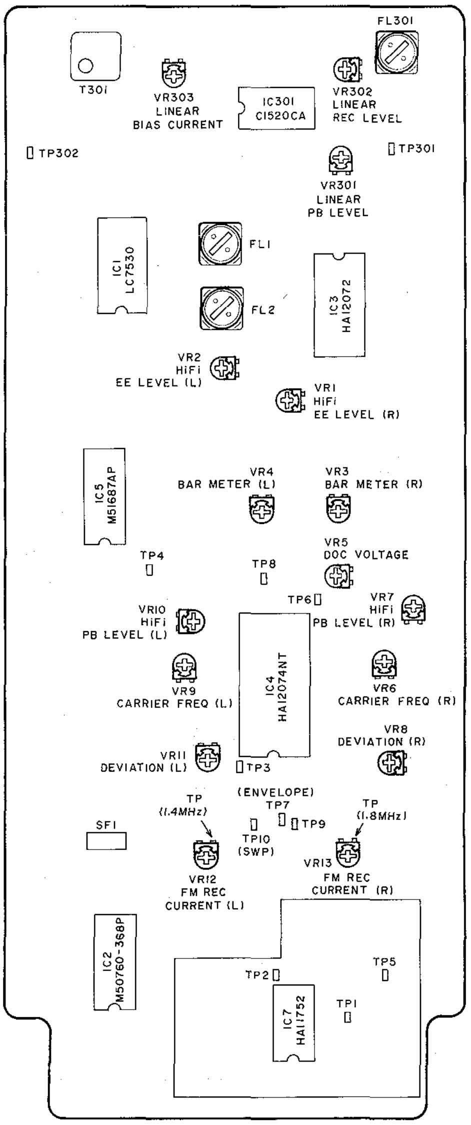
Step	Adjustment Item	Input Signal or Test Tape	Mode	Test Point	Adjustment Parts	Result & Remarks
1	EE Level	Audio 1kHz, −8dBm Input (AUDIO IN-L)	EE	Audio out	Confirmation	−6.0 ± 1.0 dBm
2	PB Level	PAL Reference Test Tape AT-751776 (TF-513L)	SP PB	Audio out L or Rch	VR301	−9.0 ± 0.5 dBm
3	Head Azimuth	PAL 6kHz Reference Test Tape AT-750795 (TF-508RF)	SP PB	Audio out L or Rch	Confirmation	$-9.0^{+3.0}_{-1.0}$ dBm
		PAL 6kHz Reference Test Tape AT-751359 (TF-531RFL)	LP PB	Audio out L or Rch	Confirmation	−15.0 ± 2.0 dBm
4	Bias Current	Audio 1kHz, −8dBm input (AUDIO IN-L)	SP REC	A/C Head Test Terminal	VR303	1. Connect an AC voltmeter to A/C Head Test Terminal 2. Adjust VR303 so that the meter reads 28.0 ± 0.5 mV (RMS)
5	REC Level	Audio 1kHz, −8dBm input (AUDIO IN-L)	LP REC/PB	Audio out	VR302	−6.0 ± 2 dBm
			SP REC/PB	Audio out	Confirmation	−6.0 ± 2 dBm
6	Frequency Response	Audio 100Hz, 1kHz, 5kHz input (AUDIO IN-L)	LP REC/PB	Audio out	VR303 Readjust	100 kHz : −26.0 ± 3 dBm 1 kHz : −26.0 ± 2 dBm 5 kHz : −26.0 ± 3 dBm
		Audio 1kHz, 7kHz, −28dBm input (AUDIO IN-L)	SP REC	Audio out	Confirmation	1 kHz : −26.0 ± 1 dBm 7 kHz −26.0 ± 1 dBm
7	Distortion	Audio 1kHz, −8dBm input (AUDIO IN-L)	LP REC/PB	Audio out	Confirmation	Less than 3%
			SP REC/PB	Audio out	Confirmation	Less than 3%

8-2-3. BAR METER ADJUSTMENT

Step	Adjustment Item	Input Signal or Test Tape	Mode	Test Point	Adjustment Parts	Result & Remarks
1	0 dB Display	Audio 1kHz, –8dBm input	EE	Bar Meter	VR4 (L-CH) VR3 (R-CH) (on HiFi Audio PC Board	1. Set Note 1. 2. Adjust VR4 and VR3 so that the green LEDs up to 0 dB are lit.
2	Meter Display Step	Audio 1kHz, –8dBm input	EE	Bar Meter	Confirmation	See Note 2.

NOTES: 1. Adjust the REC LEVEL button so that the AUDIO OUTPUT LEVEL is –6 dBm.

2. After the adjustment in Step 2, confirm that two orange LEDs are lit when the REC volume (+) on the Front Panel is pressed once.
Next, press the REC volume (–) once, and confirm that those two orange LEDs are gone out.
Then, press the REC volume (–) once more, and confirm that the green LEDs between 0 dB and –2 dB are gone out.


FL301
T301
VR303
LINEAR
BIAS CURRENT
IC301
C1520CA
VR302
LINEAR
REC LEVEL
TP302
TP301
VR301
LINEAR
PB LEVEL
IC1
LC7530
FL1
FL2
IC3
HA12072
VR2
HiFi
EE LEVEL (L)
VR1
HiFi
EE LEVEL (R)
IC5
M51687AP
VR4
BAR METER (L)
VR3
BAR METER (R)
VR5
DOC VOLTAGE
TP4
TP8
TP6
VR7
HiFi
PB LEVEL (R)
VR10
HiFi
PB LEVEL (L)
IC4
HA12074NT
VR9
CARRIER FREQ (L)
VR6
CARRIER FREQ (R)
VR8
DEVIATION (R)
VR11
DEVIATION (L)
TP3
(ENVELOPE)
TP7
TP
(1.4MHz)
TP
(1.8MHz)
SF1
TP9
TP10
(SWP)
VR13
VR12
FM REC
CURRENT (L)
FM REC
CURRENT (R)
IC2
M50760-368P
TP5
TP2
IC7
HA11752
TP1

HIFI AUDIO PCB (V1030A5410)

8-3. VIDEO ADJUSTMENT

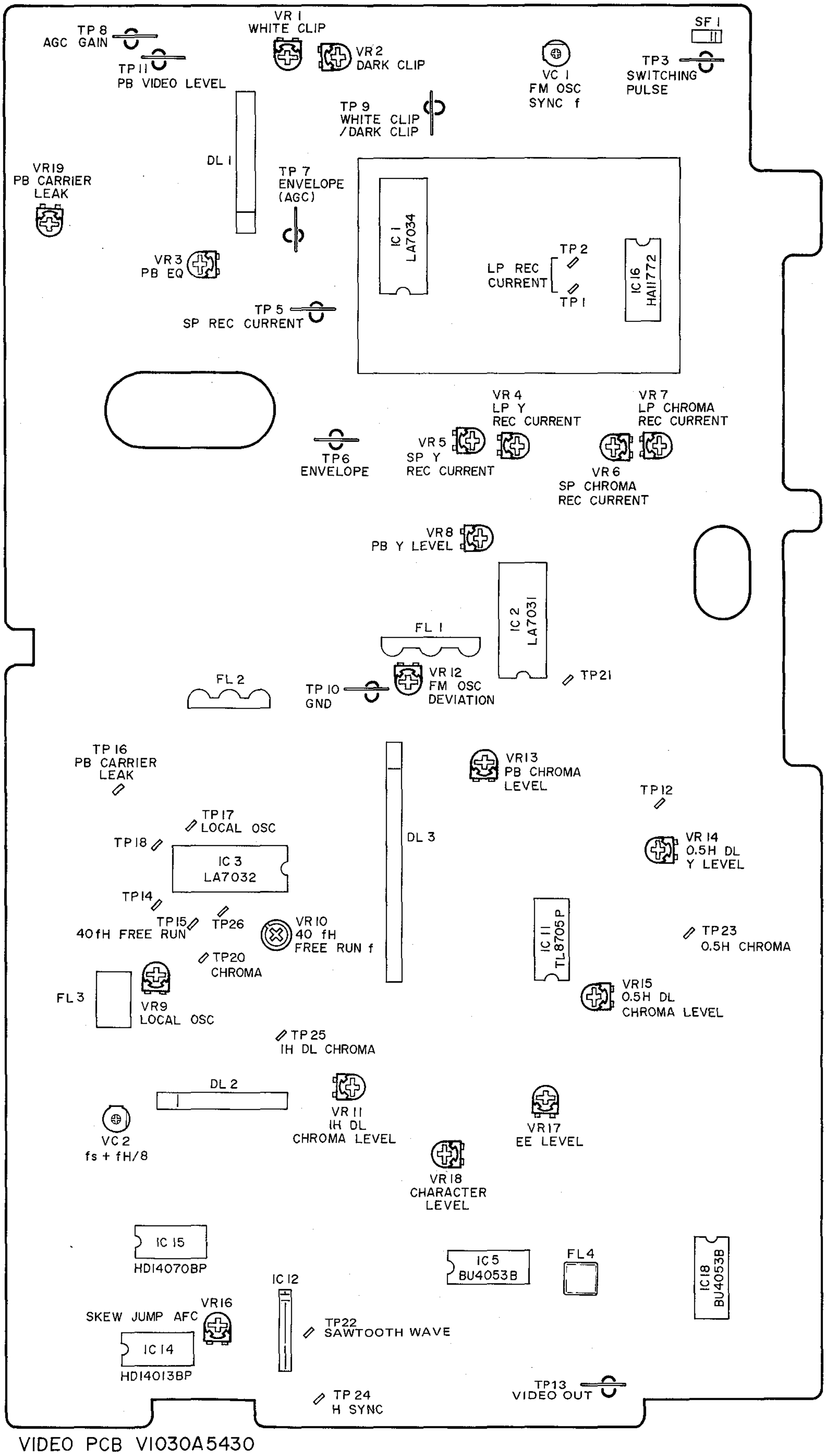
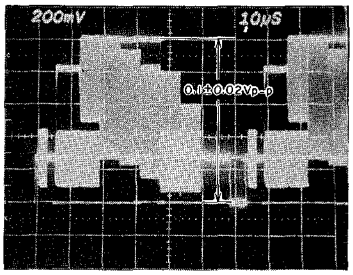
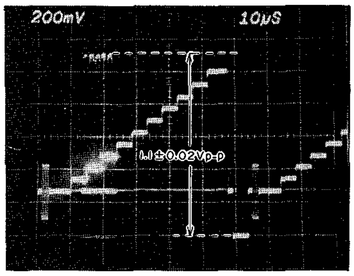
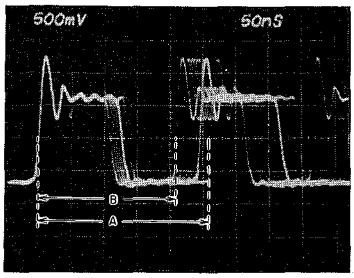
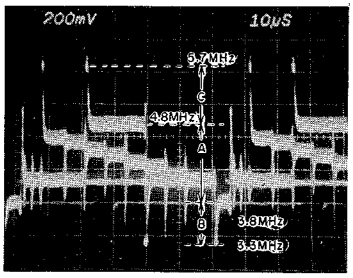
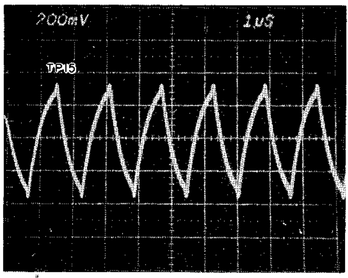

TP 8
AGC GAIN
TP 11
PB VIDEO LEVEL
VR 1
WHITE CLIP
VR 2
DARK CLIP
VC 1
FM OSC
SYNC f
SF 1
TP3
SWITCHING
PULSE
TP 9
WHITE CLIP
/DARK CLIP
DL 1
VR19
PB CARRIER
LEAK
TP 7
ENVELOPE
(AGC)
IC 1
LA7034
TP 2
LP REC
CURRENT
TP 1
IC 16
HA11772
VR 3
PB EQ
TP 5
SP REC CURRENT
VR 4
LP Y
REC CURRENT
VR 7
LP CHROMA
REC CURRENT
TP6
ENVELOPE
VR 5
SP Y
REC CURRENT
VR 6
SP CHROMA
REC CURRENT
VR8
PB Y LEVEL
IC 2
LA7031
FL 1
FL 2
TP 10
GND
VR 12
FM OSC
DEVIATION
TP21
TP 16
PB CARRIER
LEAK
VR13
PB CHROMA
LEVEL
TP12
TP 17
LOCAL OSC
TP 18
DL 3
VR 14
0.5H DL
Y LEVEL
IC 3
LA7032
TP14
TP15
40fH FREE RUN
TP26
VR 10
40 fH
FREE RUN f
IC 11
TL8705P
TP23
0.5H CHROMA
TP20
CHROMA
FL3
VR9
LOCAL OSC
VR15
0.5H DL
CHROMA LEVEL
TP 25
1H DL CHROMA
DL 2
VR 11
1H DL
CHROMA LEVEL
VR17
EE LEVEL
VC 2
fs + fH/8
VR 18
CHARACTER
LEVEL
IC 15
HD14070BP
IC 12
IC5
BU4053B
FL4
IC18
BU4053B
VR16
SKEW JUMP AFC
IC 14
HD14013BP
TP22
SAWTOOTH WAVE
TP 24
H SYNC
TP13
VIDEO OUT
VIDEO PCB VI030A5430

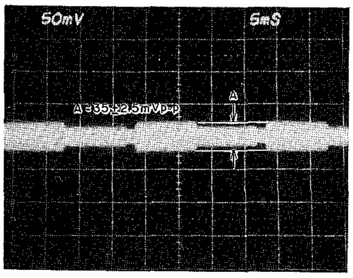
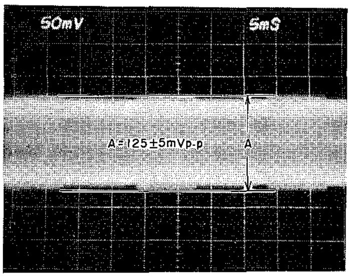
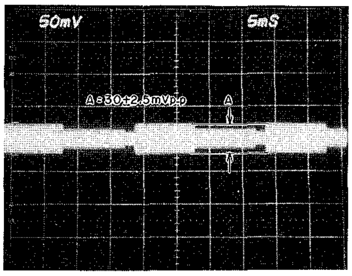
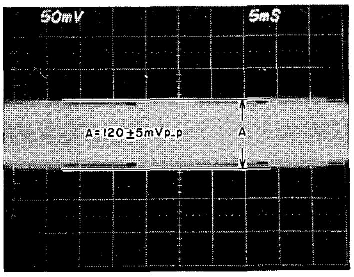
Fig. 8-3 VIDEO PCB ADJ Points

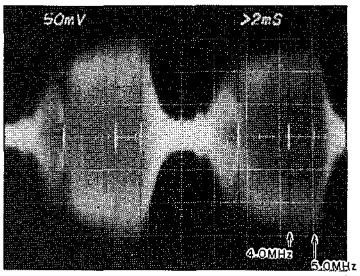
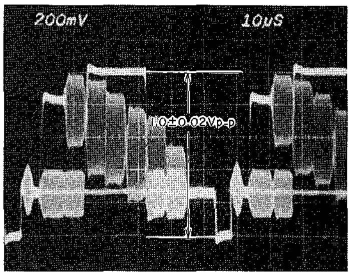
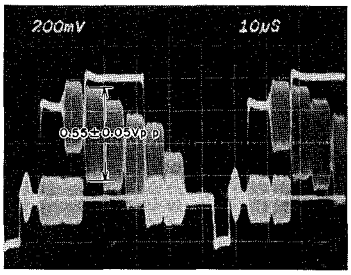
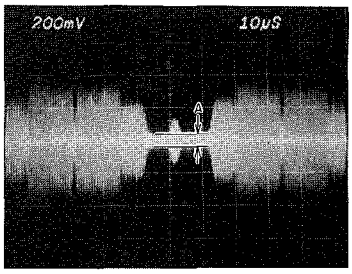
Precautionary items prior to adjustments

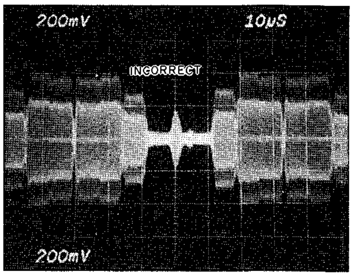
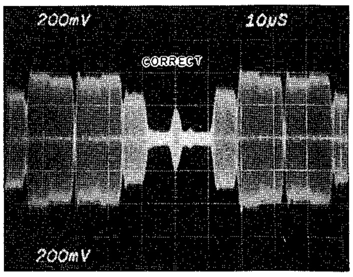
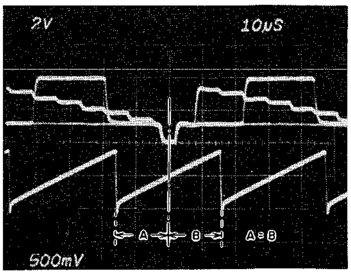
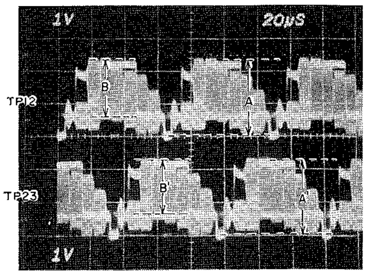
1. The color bar generator output should be 1.0 Vp-p.
2. Video output terminal should be terminated with 75 ohms (dummy or load).

Step	Adjustment Item	Input Signal or Test Tape	Mode	Test Point	Adjustment Parts	Result & Remarks
1	EE level	PAL Color from Color Bar Generator 1 Vp-p	EE	TP13	VR17	 ●Adjust VR17 so that the video output (TP13) is within 1.0 ± 0.02 Vp-p.
2	Character level	PAL Stairstep from Color Bar Generator 1 Vp-p	EE	TP13	VR18	 ●Indicate tape counter on the monitor screen by pressing the Display button on the Front Panel. ●Adjust VR18 so that the video signal level is 1.1 ± 0.02 Vp-p. ●Confirm that the buzz from the Monitor TV speaker is not existed.
3	FM OSC	PAL Color Bar from Color Bar Generator	REC	TP6	VC1 (Sync f) VR12 (Deviation)	 ●Sync f set = A = 0.263 μS (3.8 MHz) ●Deviation = B = 0.208 μS (4.8 MHz)

Step	Adjustment Item	Input Signal or Test Tape	Mode	Test Point	Adjustment Parts	Result & Remarks
4	White Clip and Dark Clip	PAL Color Bar from Color Bar Generator	EE	TP9	VR1 (White Clip) VR2 (Dark Clip)	 ●Adjust VR1 and VR2 so that the waveform at TP9 as shown above. White clip A:C = 1:0.9 Dark clip A:B = 1:0.5
5	40 fH Free Run Frequency	PAL Color Bar from Color Bar Generator	EE	TP15	VR10	 ●Connect a frequency counter between TP15 and TP10 (GND). ●Connect AL9V to TP14 through a resister (470 ohms). ●Adjust VR10 so that the counter reads 625 ± 25 kHz.
6	fs+fH/8 Frequency	PAL Color Bar from Color Bar Generator	EE	TP14	VC2	●Connect a frequency counter between TP14 and TP10 (GND). ●Adjust VC2 so that counter reads 4.435571 MHz ± 10 Hz.

Step	Adjustment Item	Input Signal or Test Tape	Mode	Test Point	Adjustment Parts	Result & Remarks
7	REC CURRENT	PAL Color Bar from Color Bar Generator	SP REC	TP5	VR6 (chroma)	●Turn VR5 fully counterclockwise (Y → zero)  ●Adjust VR6 so that the chroma REC waveform is 35 ± 2.5 mVp-p as shown above.
					VR5 (Y)	 ●Adjust VR5 so that the Y REC Current waveform is 125 ± 5.0 mVp-p as shown above.
			LP REC	TP1 or TP2	VR7 (chroma)	●Turn VR4 fully counterclockwise (Y → zero)  ●Adjust VR7 so that the chroma REC current waveform is 30 ± 2.5 mVp-p as shown above.
					VR4 (Y)	 ●Adjust VR4 so that the Y REC current waveform is 120 ± 5.0 mVp-p as shown above.

Step	Adjustment Item	Input Signal or Test Tape	Mode	Test Point	Adjustment Parts	Result & Remarks
8	PB EQ (Head Peaking)	RF Sweep Test Tape AT-750802 (TF-515SW)	SP PB	TP7	VR3	 ●Adjust VR3 so that the peak Frequency (CH-1/CH-2) is 4.7 MHz as shown above.
9	PB Y Level	PAL Color Bar from Color Bar Generator	SP REC/PB	TP13	VR8	 ●Adjust VR8 so that the Y signal is 1.0 ± 0.02 mVp-p as shown above.
10	LOCAL OSC (4.43 MHz)	PAL Color Bar from Color Bar Generator	SP REC/PB	TP17	VR9	●Connect a Frequency counter between TP17 and TP10 (GND) ●Adjust VR9 so that the counter reads 4.433619 MHz ± 10 Hz.
11	PB Chroma Level	PAL Color Bar from Color Bar Generator	SP REC/PB	TP13	VR13	 ●Adjust VR13 so that the cyan level is within 550 ± 1.0 mVp-p.
12	PB Carrier Leak	PAL Color Bar Test Tape AT-750797 (TF-510CB)	SP PB	TP16	VR19	 ●Adjust VR19 so that the level of the waveform at TP16 (A = carrier leak) is minimum.

Step	Adjustment Item	Input Signal or Test Tape	Mode	Test Point	Adjustment Parts	Result & Remarks
13	1H Delay Chroma Level	PAL Color Bar Test Tape AT-750797 (TF-510CB)	SP PB	TP20 & TP25	VR11	●Adjust VR11 so that the chroma levels at TP20 and TP25 are equal.  
14	Skew Jump AFC	PAL Color Bar Test Tape AT-750797 (TF-510CB)	SP PB	TP22 & TP24	VR16	●Adjust VR16, so that the H sync locates at the counter of the waveform as shown. 
15	0.5H Delay Y Level	PAL Color Bar Test Tape AT-750797 (TF-510CB)	SP PB	TP12 & TP23	VR14	●Adjust VR14 so that the Y level at TP12 and TP23 are equal. (A = A') 
16	0.5H Delay Chroma Level	PAL Color Bar Test Tape AT-750797 (TF-510CB)	SP PB	TP12 & TP23	VR15	●Adjust VR15 so that the chroma levels at TP12 and TP23 are equal (B = B') as shown in Step 15.

8-4. IMS (Interactive Monitor System) ADJUSTMENT

Step	Adjustment Item	Input Signal or Test Tape	Mode	Test Point	Adjustment Parts	Result & Remarks
1	Character Position	PAL Color Bar from Color Bar Generator	FUNCTION OFF ↓ ON (EE)	Monitor TV	VR1 on DEMODULATOR PCB	●Press CLOCK button and display CLOCK on the Monitor TV screen. ●Adjust VR1 so that the characters on the Monitor TV screen are central.
2	SYNC AFC	PAL Color Bar from Color Bar Generator	EE	Monitor TV	VR2 on DEMODULATOR PCB	●Adjust VR2 so that the characters on the Monitor TV screen are stabilized.

IX. PC BOARD TITLES AND IDENTIFICATION NUMBERS

PC Board Title	PC Board Number	Remarks
VIDEO PC Board	V1030A5430	
HiFi AUDIO PC Board	V1030A5410	
SERVO (A) PC Board	V1030A542A	
SERVO (B) PC Board	V1030A542B	
SERVO SUB PC Board	V1030D5480	
SYSTEM CONTROL PC Board	V1030B5470	
OPERATION PC Board	V1027A5020 (5ED)	
MECHA DRIVE PC Board	V1030A5380 (2ED)	
DEMODULATOR PC Board	V1030A5051 (6ED)	VS-603EG/EK/ES/EZ
DEMODULATOR PC Board	V1030A5440	VS-606EA/EO, VS-607EO-G
POWER SUPPLY PC Board	V1030A5092 (5ED)	
MOTOR PC Board	M3220C5010 (6ED)	
SENSOR (T) PC Board	V1030D5020 (2ED)	
SENSOR (S) PC Board	V1030D5340 (2ED)	
SENSOR (L) PC Board	V1030D5140	
SENSOR (R) PC Board	V1030D5150	
SENSOR LED PC Board	V1030D5350	
SWITCH (EJ) PC Board	V1030D5190	
CASSETTE SW PC Board	V1030D5320	
A/C HEAD PC Board	V1030D5180	
FULL ERASE PC Board	V1030D5170	
SELECTOR PC Board	V1027C5030	VS-606EO, VS-607EO-G
SELECTOR PC Board	V1027C5031	VS-603EG
SELECTOR PC Board	V1027C5033	VS-603EZ
SELECTOR PC Board	V1027C5040	VS-603EK/ES
SELECTOR PC Board	V1027C5042	VS-606EA

SECTION 3

PARTS LIST

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ATTENTION

1. When placing an order for parts, be sure to list the parts no. model no., and description of each part. If any of this information is omitted, there are instances in which parts cannot be shipped or the wrong parts will be delivered.
2. Please be careful not to make a mistake in the parts no. If the parts no. is in error, a part different from the one ordered may be delivered.
3. Because part numbers and part definitions and supply in the Preliminary Parts List may have been the subject of changes, please use this parts list for all future reference.

HOW TO USE THIS PARTS LIST

1. This Parts List shows those parts which are considered necessary for repairs. Other parts, such as resistors and capacitors, are shown in the "Common List for Service Parts" from which these parts should be selected and parts.
2. The Recommended Spare Parts List shows those parts in the Parts List which are considered particularly important for service.
3. Parts not shown in the Parts List and "Common List for Service Parts" will not in principle be supplied.
4. How to read the parts list
   a) Mechanism Block
   b) P.C Board Block

2. HEAD BASE BLOCK

REF. NO.	PART NO.	DESCRIPTION
2-1x	BH-T2023A320A	HEAD BASE BLOCK GX-F66R
2-2	HP-H2206A010A	HEAD R/P PR4-8FU C
2-3	ZS-477876	PAN20×03STL CMT
2-4	ZS-536488	BID20×08STL CMT
2-5	ZG-402895	CS ANGLE ADJUST SPRING

SP (Service Parts) Classification

A small "x" indicates the inability to show that particular part in the Photo or Illustration.

This number corresponds with the individual parts index number in that figure

This number corresponds with the Figure Number

6. SYS. CON. P C BOARD BLOCK

REF. NO.	PART NO.	DESCRIPTION
6-1	BA-T2034A070A	PC SYS CON BLK GX-F44R
6-IC1	EI-324536	IC HD14049BP
6-IC2	EI-336801	IC MB8841-564M
6-IC3	EI-331661	IC SN7405N
6-IC4	EI-336725	IC M54527P
6-TR1to4	ET-200985	TR 2SC2603 F,G
6-TR5to28	ET-554657	TR 2SA733A P,Q
6-D1	ED-318292	D SILICON H 1S2473T-77 T26
6-D2to4	ED-308952	D GERMA V 1K34A-LR F07
6-D5to10	ED-318292	D SILICON H 1S2473T-77 T26
6-X1	EI-318384	OSC X'TAL NC-18C 3.579545MHZ

SP (Service Parts) Classification

These reference symbols correspond with component symbols in the Schematic Diagrams.

5. The kind of part and its installation position can both be determined by the Part Number. To determine where a part number is listed, utilize the Parts Index at the end of the Parts List. It is necessary first of all to find the Part Number. This can be accomplished by using the Reference Number listed at the right of the part number in the Parts Index.

WARNING

⚠ INDICATES SAFETY CRITICAL COMPONENTS. FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURE'S RECOMMENDED PARTS

AVERTISSEMENT

⚠ IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDEES PAR LE FABRICANT

RECOMMENDED SPARE PARTS LIST

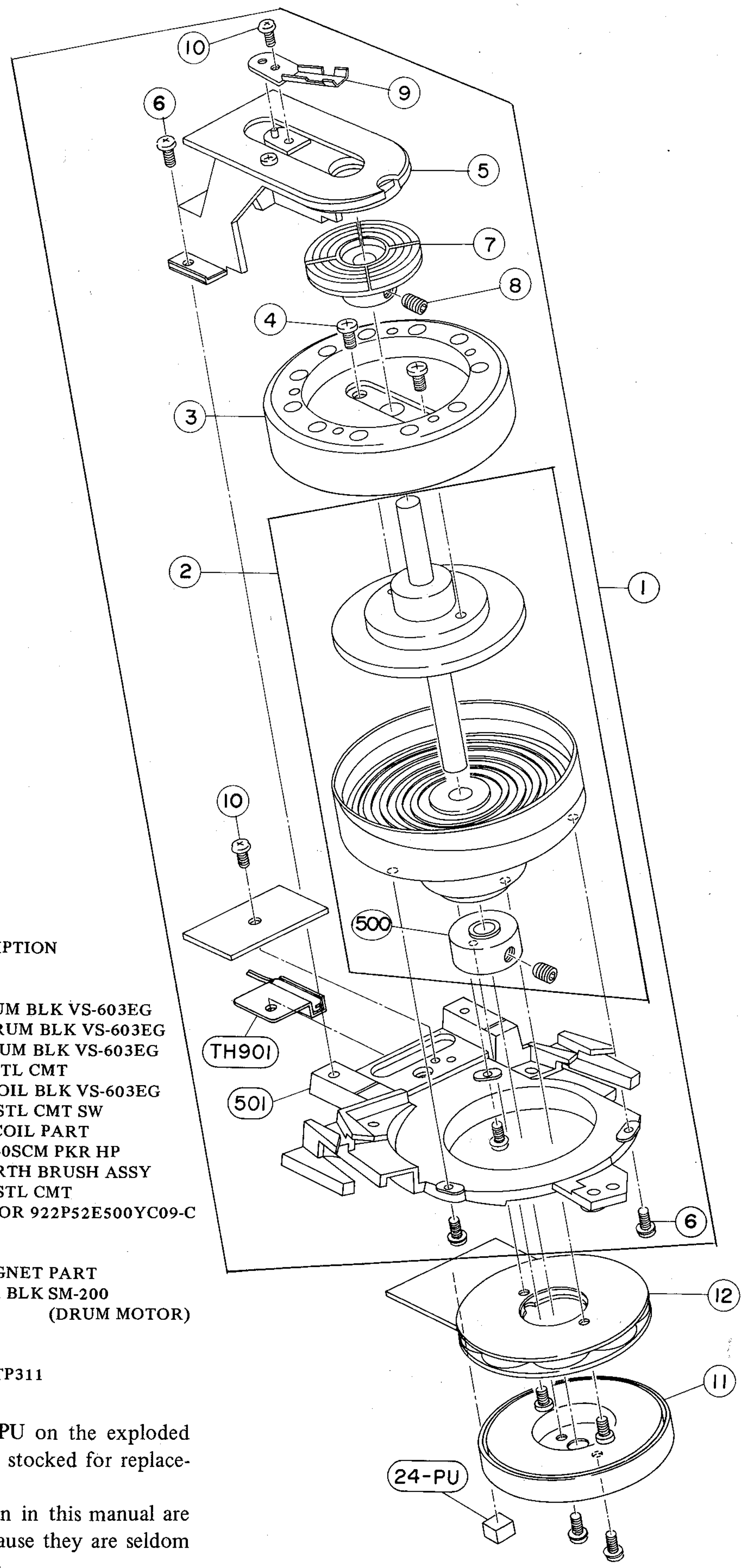
Because, if the parts listed below are on hand almost any repair can be accomplished, we suggest that you stock these Recommended Spare Parts Items.

NO.		PART NO.	DESCRIPTION
1		BM-353630	CAPSTAN MOTOR DDV6-20A
2		BM-360149	REEL MOTOR JME2B92
3		BR-B359158	REEL TABLE COMP (2) PART
4	N	BR-362130	TAKE-UP REEL TABLE COMP PART
5		BT-353936	⚠ TRANS POWER V1027 EG 220-110 [EG]
6		BT-356595	⚠ TRANS POWER V1027 EO 220 [EA,EO-G]
7		BT-354342	⚠ TRANS POWER V1027 ES 250-220 [ES]
8		BT-356594	⚠ TRANS POWER V1027 EZ 230-115 [EZ]
9		BT-357703	⚠ TRANS POWER V1030EK 240-200 [EK,EO]
10		BV-V1030A100A	LOADING DRIVE BLK VS-603
11	N	BV-V1030A210C	LOWER DRUM BLK VS-603EG
12		BV-V1030A030A	PINCH ROLLER BLK VS-603
13		BV-353841	RF CONVERTER SW MDLL5S150A [EA]
14		BV-354879	RF CONVERTER/BOOSTER MDLL5D073A [EZ]
15		BV-353839	RF CONVERTER/BOOSTER MDLL6D023A [EG]
16		BV-353840	RF CONVERTER/BOOSTER MDLL6I023A [EK,ES]
17		BV-353842	RF CONVERTER/BOOSTER MDLL6S023A [EO,EO-G]
18	N	BV-V1030A220A	UPPER DRUM BLK VS-603EG
19		EC-346765	C S-FIX H ECR-HA010A11 2.8-10
20		EC-346764	C S-FIX H ECR-HA020D11 4-20
21		ED-353550	⚠ D SILICON DBA30C-K12 200/3.0A
22		ED-357754	⚠ D SILICON DS135D 200/1.0A
23		ED-348205	⚠ D SILICON V MC931 DOUBLE
24		ED-319463	⚠ D SILICON 4B4B41 100/4.0A
25		ED-359232	⚠ D THYRISTER DRA2TB 100V 2.00A
26		ED-316389	⚠ D ZENER H HZ11 A2
27		ED-309069	⚠ D ZENER H HZ6 B2
28		ED-347776	D LED BG5608S GREEN
29		ED-347777	D LED BR5628S RED
30		ED-354313	D LED EBG3423S GREEN
31		ED-352723	D LED LD-603MG GREEN
32		ED-358056	D LED LN-68 INFRARED
33		ED-357540	D LED LN59
34		ED-356359	D LED PR5531K RED
35		ED-714631	D LED TLN105A
36		ED-348990	D SILICON H DS446
37		ED-301911	D SILICON H DS448
38		ED-344280	D SILICON H GMA-01-FY2 F05
39		ED-360318	D SILICON H MA700
40	N	ED-717489	D SILICON H 1SS119-04TJ [EA,EO,EO-G]
41		ED-523427	D SILICON H 1SS16
42		ED-624903	D SILICON H 1S2473
43		ED-347767	D SILICON V MC911 DOUBLE
44		ED-714603	D VARACTOR 1SV70-20FG
45		ED-356430	D ZENER H HZS8.2E F05 B2,B3
46		ED-310387	D ZENER H HZ12 B2
47		ED-331626	D ZENER H HZ3 B2
48		ED-346631	D ZENER H HZ36 3
49		ED-305655	D ZENER H HZ4 B3
50		ED-302269	D ZENER H HZ5 A2
51		ED-300035	D ZENER H HZ6 B3
52		ED-307610	D ZENER H HZ7 A2
53		ED-351392	D ZENER H HZ9 B [EZ,EA,EO,EO-G]
54		ED-356781	D ZENER H MA1062-L
55		ED-359238	D ZENER H MA1100-L
56		ED-359237	D ZENER H MA1130-H
57		EE-353832	TV TUNER TEEB1-020A [EK]
58		EE-353831	TV TUNER TEED1-A10A [EG]
59		EE-353833	TV TUNER TEEE1-A07A [EO]
60		EE-359413	TV TUNER TEEE1-A13 [EO-G]
61		EE-353835	TV TUNER TEES1-025A [EA]
62		EE-353834	TV TUNER TEEZ1-024A [ES]
63		EE-356135	TV TUNER TEEZ1-032A [EZ]
64		EF-347968	⚠ FUSE ICP-F10 150V 0.4A
65		EF-346880	⚠ FUSE ICP-F15 150V 0.6A
66		EF-355398	⚠ FUSE BET T 2.00A 250V
67		EF-601301	⚠ FUSE SEMKO T 2.00A 250V
68		EH-358801	DL EFD-BR124A13V
69		EH-353817	DL EFD-VN645A83F
70	N	EH-359258	DL EFD-VN645A83H
71	N	EH-358849	FILTER CE SFE13.3MA
72		EH-356067	FILTER LC BP GZV-322-1A 5.06MHZ
73	N	EH-360324	FILTER LC BP LJ25BP1.4M03-32
74	N	EH-360326	FILTER LC BP LJ25BP1.803-32
75		EH-356672	FILTER LC BP SLC2915 4.43MHZ
76		EH-354086	FILTER LC DL GYV-501-1T [EG,EZ]
77	N	EH-360327	FILTER LC LP FX-100E
78		EH-345113	FILTER LC LP LJ25LP3.4M01-32
79		EI-353421	⚠ IC BA6229
80		EI-356381	⚠ IC STK5434
81		EI-330986	⚠ IC TA78L009AP
82		EI-337530	⚠ IC μPC574J
83		EI-K5001A010A	IC AF2401
84		EI-324203	IC AN6342N
85		EI-353478	IC AN6881
86		EI-356288	IC BA225A
87		EI-356289	IC BA226A
88		EI-358853	IC BA235
89		EI-337625	IC BA236
90		EI-357040	IC BA6302A
91	N	EI-360316	IC BA6305
92		EI-353695	IC BA634
93	N	EI-358844	IC BA7023
94		EI-354399	IC BU4001B
95		EI-354400	IC BU4011B
96	N	EI-356457	IC BU4013B
97		EI-356455	IC BU4053B
98		EI-354401	IC BU4066B
99		EI-352714	IC HA11752
100		EI-353800	IC HA11772
101	N	EI-358500	IC HA12072NT
102	N	EI-358501	IC HA12074NT
103		EI-200495	IC HD14013BP
104		EI-328593	IC HD14053BP
105		EI-328693	IC HD14070BP
106		EI-347781	IC LA6393D
107		EI-347779	IC LA6393S
108		EI-353813	IC LA7031
109		EI-353815	IC LA7032
110		EI-353814	IC LA7034
111		EI-356370	IC LA7224
112	N	EI-717488	IC LA7755M [EA,EO,EO-G]
113		EI-353848	IC LA7808
114		EI-348111	IC LC4071B
115		EI-353867	IC LC4077
116		EI-345759	IC LC7350
117		EI-361554	IC MB88301A-P
118		EI-347773	IC MB88303M
119		EI-353851	IC MB88305-P
120	N	EI-360087	IC MB8841-1429J B-PAL
121	N	EI-360089	IC MB88501-352M OPE3
122		EI-353783	IC MB88505-266M IMS-U [EZ,EA]
123		EI-357092	IC MB88505-285M IMS-E [EG,EK,ES,EO]
124		EI-357093	IC MB88505-293M IMS-G [EO-G]
125	N	EI-359325	IC M50760-368P B-PAL
126	N	EI-358502	IC M51687AP
127		EI-346071	IC M5218L-21 [EA,EO,EO-G]
128		EI-349719	IC M5218P
129		EI-356811	IC M5224P
130		EI-353893	IC M54565P
131		EI-355709	IC M54572L
132		EI-714602	IC TA7337P [EG,EK,ES,EZ]
133		EI-358842	IC TA7347P
134	N	EI-358845	IC TA7374
135		EI-705494	IC TA7607AP
136		EI-310036	IC TC4066BP [EA,EO,EO-G]
137	N	EI-358843	IC TL8705
138		EI-749828	IC μPC1391H [EA,EO,EO-G]
139		EI-353475	IC μPC1504C
140	N	EI-358506	IC μPC1513HA
141	N	EI-358505	IC μPC1520CA
142	N	EI-358504	IC μPC1522HA
143		EI-353477	IC μPC1526C
144		EI-749983	IC μPD1943G
145		EI-349372	OSC CE CSA4.00MG 4MHZ
146		EI-710044	OSC CE CSB455EB 455KHZ
147		EI-356371	OSC X'TAL MS-309 4.194304MHZ
148		EI-309878	OSC X'TAL 4.433619MHZ
149		EI-322347	OSC X'TAL 4.435571MHZ
150		EL-353625	PL CORD 8.0V 100MA 175/175
151		EL-353624	PL CORD 8.0V 100MA 235/235
152		EM-353891	IND LE GL3E416
153	N	EM-361786	IND LE LT-1162 GRAPH
154		ER-345751	⚠ R FUSE ERD2FC S10 1/4W 15R0G
155	N	ER-362061	R THERMO H 3000PPM 1/4W 103J
156		ES-354430	⚠ SW SLIDE 00220950 02-02-2N [EG,ES,EK]
157		ES-354308	SW LEAF MSW-1595C
158		ES-353653	SW MODE SRZZ0002A1
159		ES-353622	SW PUSH EVQ-WU7001 02-2
160		ES-347048	SW PUSH SSCSP1072A 1-01-02N
161		ES-353708	SW SLIDE SSSY12083A 2-02-03N
162		ES-201527	SW SLIDE SSS212 1-01-02N
163		ES-347755	SW TACT EVQ-QSE05T
164		ES-357786	SW TACT SKHHPC011A
165		ET-349882	⚠ TR 2SA1283 D,E
166		ET-348948	⚠ TR 2SD1273 P,Q
167		ET-330717	PHOTO SENSOR NJL1644L
168		ET-353635	PHOTO SENSOR ON2160 Q.R.S
169		ET-354370	TR DTA124ES
170		ET-360824	TR DTC144E F
171		ET-354414	TR DTC144ES
172		ET-356236	TR FET 2SK363 GR.BL
173		ET-318308	TR PHOT PN202S
174		ET-359700	TR PHOT PN202S S
175		ET-308472	TR 2SA1115 E,F,G
176		ET-356224	TR 2SA1286 G,H,J
177		ET-349725	TR 2SA1391 S,T
178		ET-336845	TR 2SB641 Q,R,S,T
179		ET-356153	TR 2SB643 Q,R,S,T
180		ET-357546	TR 2SB895A P,Q,R
181		ET-321644	TR 2SC1213 C
182		ET-306719	TR 2SC2236 O,Y
183		ET-308141	TR 2SC2603 G
184		ET-355669	TR 2SC3246 G,H,J
185		ET-349081	TR 2SC3383 S,T
186		ET-352994	TR 2SC3401
187		ET-349366	TR 2SC3402
188		ET-338324	TR 2SD1012-V H
189		ET-360695	TR 2SD1302 S,T
190		ET-318604	TR 2SD545NP E,F
191		ET-309434	TR 2SD636 Q,R,S,T
192		ET-200986	TR 2SD863-V8 F
193		EV-358860	R S-FIX H H0615C 3P 101
194		EV-356579	R S-FIX H H0615C 3P 102
195		EV-356577	R S-FIX H H0615C 3P 103
196		EV-356575	R S-FIX H H0615C 3P 222
197		EV-358829	R S-FIX H H0615C 3P 223
198		EV-356583	R S-FIX H H0615C 3P 332
199		EV-356576	R S-FIX H H0615C 3P 472
200		EV-356582	R S-FIX H H0615C 3P 473
201		EV-358862	R S-FIX H H0615C 3P 474
202		EV-336769	R S-FIX H H0621A 3P 0.30W 473
203	N	EV-356448	R S-FIX H H0624C 3P 0.30W 154
204		EV-356447	R S-FIX H H0624C 3P 0.30W 333

NO.		PART NO.	DESCRIPTION
205		EV-356445	R S-FIX H H0624C 3P 0.30W 473
206		EV-356444	R S-FIX H0624C 3P 0.30W 683
207		EV-361358	R S-FIX H H0624C 3P 030W 104
208		EV-348204	R S-FIX H H0651A 3P 0.05W 683
209		EV-356324	R S-FIX H KVSF637A 3P 103
210		EV-358808	R S-FIX H KVSF637A 3P 152
211		EV-353425	R S-FIX H RVF6P01 3P 103
212		EV-353423	R S-FIX H RVF6P01 3P 503 [EA,EO,EO-G]
213	N	EV-717487	R S-FIX H RVF6P01 104 [EA,EO,EO-G]
214		EV-337949	R S-FIX H TM64K3 3P 0.30W 103
215	N	EV-360317	R S-FIX V RHLON 3P 0.3W 104
216		EV-713607	R S-FIX RVF6P01-103
217		EV-714599	R S-FIX RVF6P01-202
218		EV-714581	R S-FIX RVF6P01-502 [EA,EO,EO-G]
219		EX-338414	⚠ POSISTER PTH61G27BD2R2N
220		EX-330533	⚠ POSISTER PTH61G27BD3R3N
221		EX-355657	⚠ POSISTER PTH61G27BD6R8N
222	N	EX-359420	⚠ POSISTER PTH62G08BD1R0N016
223		EX-357642	DEW SENSOR 922P52E500YC09-C
224	N	EX-359254	THERMISTER ERT-D2ZHL153S
225		EZ-356237	BATTERY P-01H-F4N4
226		HC-353332	HEAD PU TP311
227		HF-325273	HEAD E HVFSA0001A V
228		HR-353638	HEAD COMBO HVMSA1015B
229	N	MI-361964	IDLER PART
230		MZ-353166	GEAR (1)
231		MZ-353167	GEAR (2)
232		MZ-353168	GEAR (3)
233		MZ-353169	GEAR (4)
234		MZ-B353201	GEAR EJECT PART
235		MZ-B351526	GEAR EJECTOR (A) PART VS-603
236		MZ-353170	GEAR IDLER
237		MZ-351524	GEAR LOADING (L)
238		MZ-351525	GEAR LOADING (R)
239		MZ-B351529	GEAR MAIN PART VS-603
240		MZ-351527	GEAR RELAY
241		MZ-353364	GEAR WORM WHEEL
242		VT-B353093	ROTARY COIL PART
243	N	VT-V1030A230B	STATER COIL BLK VS-603EG

"NOTE" N: New Parts

HEAD DRUM BLOCK

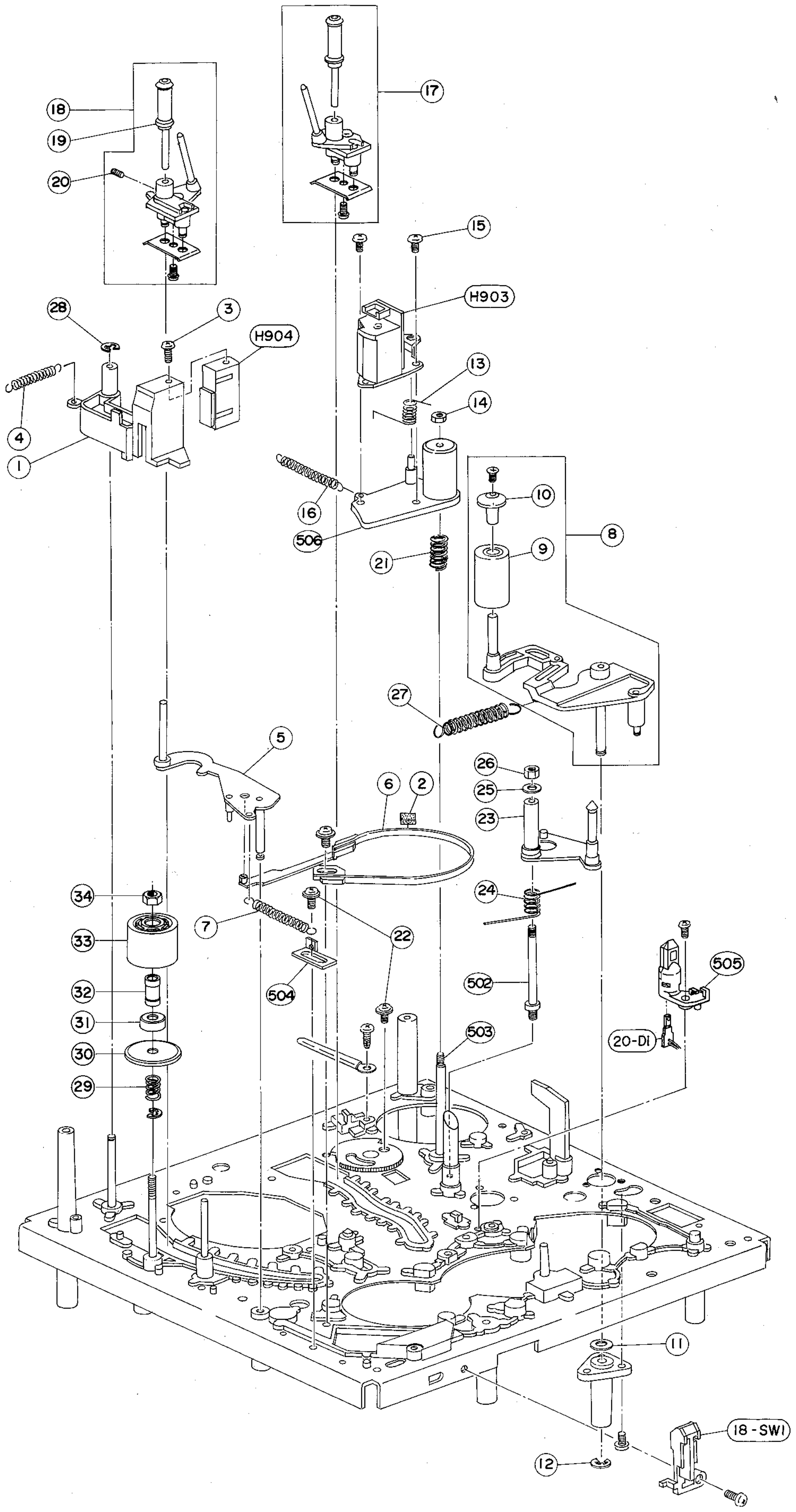


1. HEAD DRUM BLOCK

REF. NO.	PART NO.	DESCRIPTION
	HEAD DRUM BLOCK	
1-1	BV-V1030A200A	HEAD DRUM BLK VS-603EG
1-2	BV-V1030A210C	LOWER DRUM BLK VS-603EG
1-3	BV-V1030A220A	UPPER DRUM BLK VS-603EG
1-4	ZS-362241	BID30x09STL CMT
1-5	VT-V1030A230B	STATER COIL BLK VS-603EG
1-6	ZS-354332	PAN26x08STL CMT SW
1-7	VT-B353093	ROTARY COIL PART
1-8	ZS-356815	6SET30x060SCM PKR HP
1-9	VT-353098	DRUM EARTH BRUSH ASSY
1-10	ZS-432843	PAN26x04STL CMT
1-TH901	EX-357642	DEW SENSOR 922P52E500YC09-C
	MOTOR SM-200 BLOCK	
1-11	BV-B353329	YOKE MAGNET PART
1-12	BM-M3220A020A	PC MOTOR BLK SM-200 (DRUM MOTOR)
	MOTOR PC BOARD	
24-PU	HC-353332	HEAD PU TP311

NOTE: Parts listed in 1-1 to 24-PU on the exploded view and list are normaly stocked for replacement purpose.
The remaining parts shown in this manual are not normaly stocked, because they are seldom required for routine service.

CHASSIS MECHA BLOCK (1)



2. CHASSIS MECHA BLOCK (1)

REF. NO.	PART NO.	DESCRIPTION
	CHASSIS MECHA BLOCK	
2-1	ML-353146	ARM FE HEAD
2-2	MB-357976	CUSHION WALL
2-3	ZS-460440	PAN20×04STL CMT
2-4	ZG-357866	SP T6-04.0&0.40-20.0 T6-113
2-5	BL-B353122X1	LEVER TENSION (2) PART
2-6	BV-B352377	ARM TENSION BAND PART VS-603
2-7	ZG-357769	SP PULL TENSION
2-8	BV-V1030A030A	PINCH ROLLER BLK VS-603
2-9	MP-357547	ROLLER PINCH 16×20
2-10	SR-357552	CAP PINCH ROLLER
2-11	ZW-259738	PW41×070×025PSL
2-12	ZW-270101	RING E 300SUP CMT
2-13	ZG-313261	SP C-04.5/1.00-08.0 C-105
2-14	ZW-516993	N30STL CMT 1
2-15	ZS-379350	PAN30×06STL CMT
2-16	ZG-321598	SP T2-06.3/0.80-31.5 T2-199
2-17	VT-V1030A080A	LOADING LEADER (R) BLK VS-603
2-18	VT-V1030A090A	LOADING LEADER (L) BLK VS-603
2-19	VT-353658	VERTICAL POLE
2-20	ZS-302938	6SET20×030SCM PKR WP
2-21	ZG-313209	SP C-05.5/0.80-12.5 C-054
2-22	ZS-328607	SCREW TRIPLE PAN30×05
2-23	BL-B357555	LEVER REVIEW PART VS-603
2-24	ZG-357559	SP TORSION REV
2-25	ZW-324417	PW31×060×050PSL
2-26	ZW-350839	N30 NYLON
2-27	ZG-353626	SP PULL PINCH
2-28	ZW-357164	RING E 230SUP CMT
2-29	ZG-359184	SP PUSH ROLLER IMPEDANCE VOL2
2-30	MI-359475	GUIDE IMPEDANCE ROLLER
2-31	MZ-359183	COLLAR SHAFT 2
2-32	MZ-359182	COLLAR SHAFT 1
2-33	MR-359181	ROLLER IMPEDANCE VOL 2
2-34	ZW-350839	N30 NYLON
2-H903	HR-353638	HEAD COMBO HVMSA1015B
2-H904	HE-325273	HEAD HVFSA0001A V
	SENSOR (S) PC BOARD	
18-SW1	ES-354308	SW LEAF MSW-1595C
	SENSOR LED PC BOARD	
20-D1	ED-357540	D LED LN59

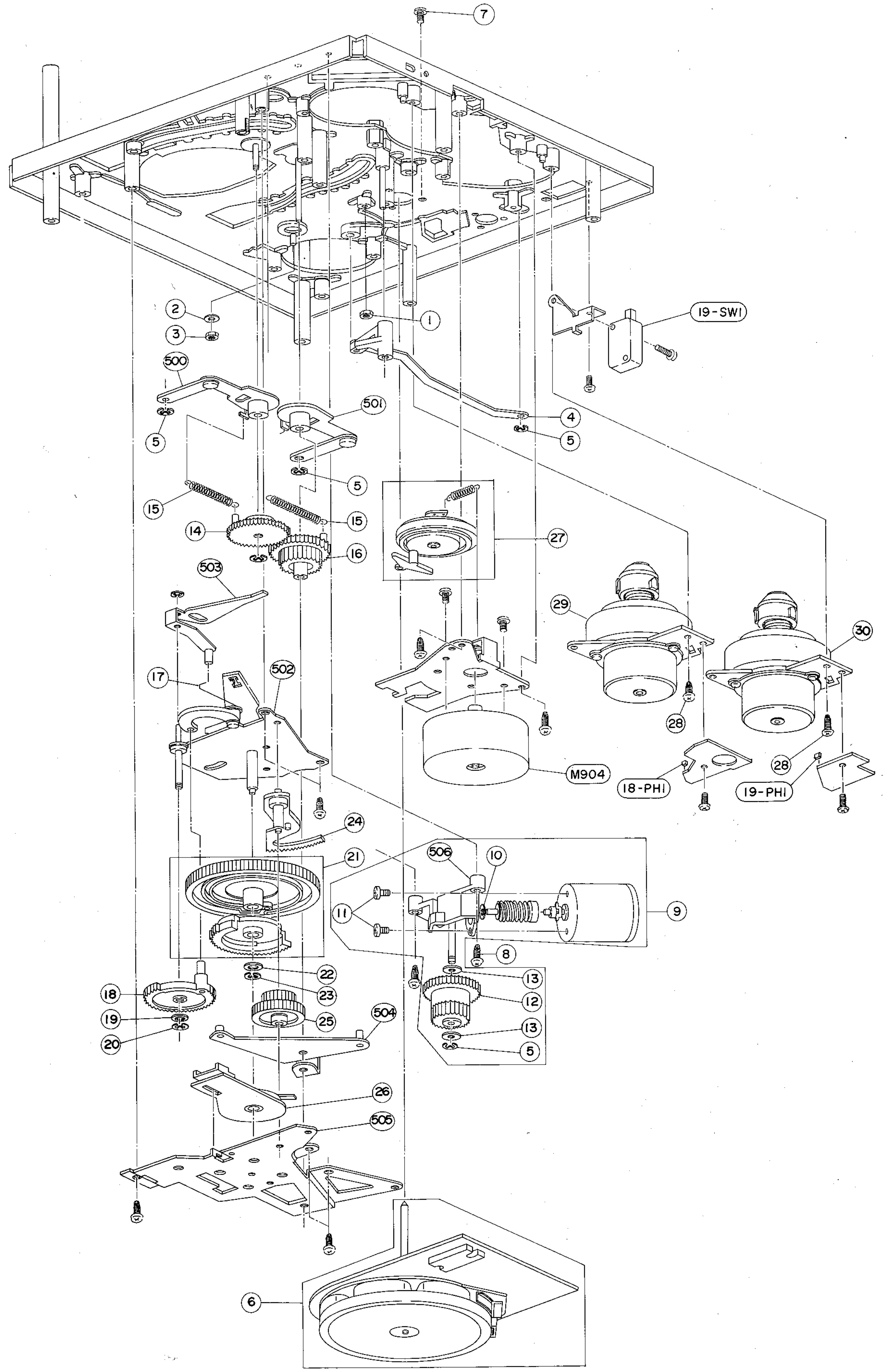
NOTE: Parts listed in 2-1 to 20-D1 on the exploded view and list are normaly stocked for replacement purpose.
The remaining parts shown in this manual are not normaly stocked, because they are seldom required for routine service.

3. CHASSIS MECHA BLOCK (2)

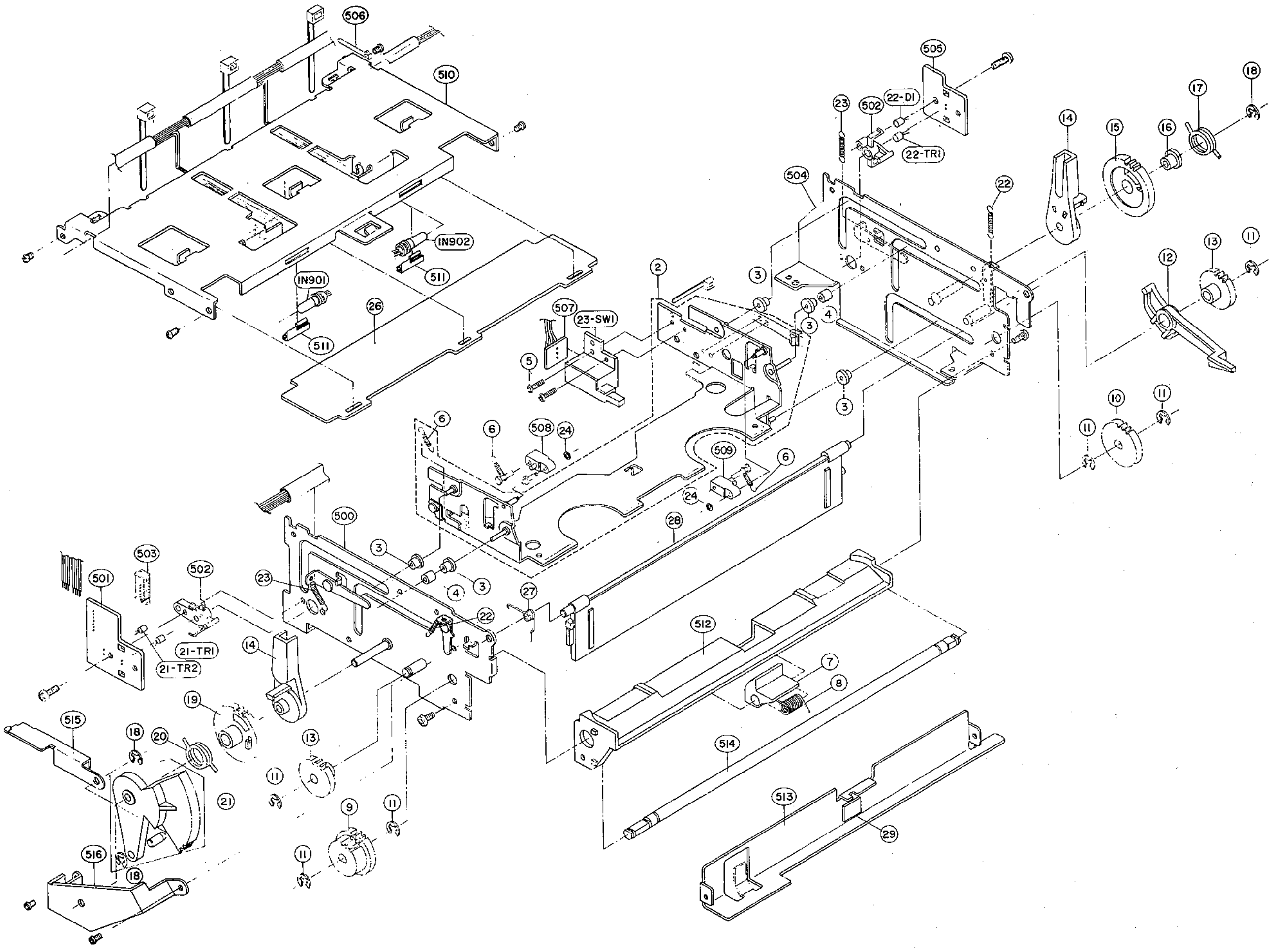
REF. NO.	PART NO.	DESCRIPTION
	CHASSIS MECHA BLOCK	
3-1	ZW-609434	N FRANGE 30STL CMT
3-2	ZW-381881	PW41×130×100STL CMT
3-3	ZW-413188	N40STL CMT 1
3-4	BL-B353126	LEVER PINCH ROLLER LINK PART VS-603
3-5	ZW-357164	RING E 230SUP CMT
3-6	BM-353630	CAPSTAN MOTOR DDV6-20A
3-7	ZS-608220	PAN26×06STL CMT
3-8	ZS-417194	BID30×10STL CMT
3-9	BV-V1030A100A	LOADING DRIVE BLK VS-603
3-10	ZW-354346	PW21×060×025PBR
3-11	ZS-422076	PAN30×05STL CMT
3-12	MZ-353364	GEAR WORM WHEEL
3-13	ZW-288797	PW31×070×025PSL
3-14	MZ-351524	GEAR LOADING (L)
3-15	ZG-353648	SP PULL
3-16	MZ-351525	GEAR LOADING (R)
3-17	ZG-356682	SP TORSION
3-18	MZ-B351526	GEAR EJECTOR (A) PART VS-603
3-19	ZW-259738	PW41×070×025PSL
3-20	ZW-270101	RING E 300SUP CMT
3-21	MZ-B351529	GEAR MAIN PART VS-603
3-22	ZW-353647	PW50×090×025PSL
3-23	ZW-270123	RING E 400SUP CMT
3-24	ML-B351942	LEVER LOADING GEAR PART VS-603
3-25	MZ-351527	GEAR REALY
3-26	ES-353653	SW MODE SRZZ0002A
3-27	MI-361964	IDLER PART
3-28	ZS-354402	PT PAN26×10STL CMT
3-29	BR-B359158	REEL TABLE COMP (2) PART
3-30	BR-362130	TAKE-UP REEL COMP PART
3-M904	BM-360149	REEL MOTOR JME2B92
	SENSOR (S) PC BOARD	
18-PH1	ET-353635	PHOTO SENSOR ON2160 Q.R.S
	SENSOR (T) PC BOARD	
19-PH1	ET-353635	PHOTO SENSOR ON2160 Q.R.S
19-SW1	ES-347048	SW PUSH SSCSP1072A 1-01-02N

NOTE: Parts listed in 3-1 to 19-SW1 on the exploded view and list are normaly stocked for replacement purpose.
The remaining parts shown in this manual are not normaly stocked, because they are seldom required for routine service.

CHASSIS MECHA BLOCK (2)



EJECTOR BLOCK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4. EJECTOR BLOCK

REF. NO.	PART NO.	DESCRIPTION
	EJECTOR BLOCK	
4-1	BV-V1030A250A	EJECTOR BLK VS-603
4-2	MZ-B353211	HOLDER CASSETTE PART
4-3	MR-353164	ROLLER (1)
4-4	MR-353165	ROLLER (2)
4-5	ZS-417216	PAN30x04STL CMT
4-6	ZG-357865	SP T5-04.0/0.40-11.2 T5-108
4-7	MZ-355643	STOPPER (C)
4-8	ZG-353204	SP TORSION (B)
4-9	MZ-353166	GEAR (1)
4-10	MZ-353167	GEAR (2)
4-11	ZW-270123	RING E 400SUP CMT
4-12	ML-353161	ARM OPENER
4-13	MZ-353170	GEAR IDLER
4-14	ML-353162	ARM LOADING
4-15	MZ-353169	GEAR (4)
4-16	MZ-353163	COLLAR
4-17	ZG-353205	SP TORSION (A)
4-18	ZW-270101	RING E 300SUP CMT
4-19	MZ-353168	GEAR (3)
4-20	ZG-356911	SP TORSION (L)
4-21	MZ-B353201	GEAR EJECT PART
4-22	ZG-357753	SP T5-04.0/0.40-12.5 T5-109
4-23	ZG-357158	SP T5-05.0/0.55-20.0 T5-156
4-24	ZW-343120	PW17x040x025PSL
4-IN901	EL-353625	PL CORD 8.0V 100MA 175/175
4·IN902	EL-353624	PL CORD 8.0V 100MA 235/235

REF. NO.	PART NO.	DESCRIPTION
	ASSEMBLY BLOCK	
4-26	SP-353210	PLATE MIRROR
4-27	ZG-353206	SP TORSION MASK CASSETTE
4-28	SE-353040E	MASK CASSETTE(ENGLISH PAL)
4-29	MB-357511	CUSHION PC (1)
	SENSOR (L) PC BOARD	
21-TR1	ET-318308	TR PHOT PN202S
21-TR2	ET-359700	TR PHOT PN202S S
	SENSOR (R) PC BOARD	
22-TR1	ET-318308	TR PHOT PN202S
22-D1	ED-358056	D LED LN-68 INFRARED
	SW (EJ) PC BOARD	
23-SW1	ES-353622	SW PUSH EVQ-WU7001 02-2

NOTE: Parts listed in 4-1 to 23-SW1 on the exploded view and list are normaly stocked for replacement purpose.
The remaining parts shown in this manual are not normaly stocked, because they are seldom required for routine service.

5. PC BOARD BLOCK

REF. NO.	PART NO.	DESCRIPTION
5-1A	BA-V1030A300A	PC VIDEO (B-PAL) BLK VS-603EG [EG]
5-1B	BA-V1030A300B	PC VIDEO (B-PAL) BLK VS-603EK/ES [EK,ES]
5-1C	BA-V1030A300C	PC VIDEO (B-PAL) BLK VS-603EZ [EZ]
5-1D	BA-V1030A300D	PC VIDEO (B-PAL) BLK VS-606EA
5-1E	BA-V1030A300E	PC VIDEO (B-PAL) BLK VS-606EO
5-1F	BA-V1030A300F	PC VIDEO (B-PAL) BLK VS-607EO-G
5-2	BA-V1030A310A	PC HIFI AUDIO BLK VS-603EG
5-3	BA-V1030A320A	PC SERVO(B-PAL) BLK VS-603EG
5-4A	BA-V1030A330A	PC OPERATION BLK VS-603EG [EXCEPT EZ]
5-4B	BA-V1030A330B	PC OPERATION BLK VS-603EZ [EZ]
5-4C	BA-V1030A330C	PC OPERATION BLK VS-606EA
5-4D	BA-V1030A330D	PC OPERATION BLK VS-606EO
5-5	BA-V1030A370D	PC MECHA DRIVE BLK VS-603EG
5-6	BA-V1030A390A	PC SYSCON (PAL) BLK VS-603EG
5-7A	BA-V1030A360A	PC DEMODULATOR B-P BLK VS-603EG
5-7B	BA-V1030A360B	PC DEMODULATOR B-P BLK VS-603EK
5-7C	BA-V1030A360C	PC DEMODULATOR B-P BLK VS-603ES
5-7D	BA-V1030A360D	PC DEMODULATOR B-P BLK VS-603EZ
5-7E	BA-V1030B350A	PC DEMODULATOR BLK VS-606EA
5-7F	BA-V1030B350B	PC DEMODULATOR BLK VS-606EO
5-7G	BA-V1030B350C	PC DEMODULATOR BLK VS-607EO-G
5-8A	BV-V1030A900B	VID BLK VS-301EG-G [EG]
5-8B	BV-V1030A900E	VIF BLK VS-303ES [ES]
5-8C	BV-V1030A900F	VIF BLK VS-303EZ [EZ]
5-8D	BV-V1030A900G	VIF BLK VS-301EK [EK]
5-8E	BV-V1030B900A	VIF BLK VS-606EA
5-8F	BV-V1030B900B	VIF BLK VS-606EO
5-8G	BV-V1030B900C	VIF BLK VS-607EO-G
5-9	BA-V1030A340F	PC POWER BLK VS-603EG

NOTE: (1) PC SERVO (B-PAL) BLK consists of SERVO (A) PC BOARD and SERVO (B) PC BOARD.
(2) PC DEMODULATOR BLK consists of VIF BLK.

6. VIDEO PC BOARD

REF. NO.	PART NO.	DESCRIPTION
6-IC1	EI-353814	IC LA7034
6-IC2	EI-353813	IC LA7031
6-IC3	EI-353815	IC LA7032
6-IC4	EI-324203	IC AN6342N
6-IC5	EI-356455	IC BU4053B
6-IC6to10	EI-358842	IC TA7347P
6-IC11	EI-358843	IC TL8705
6-IC12	EI-358844	IC BA7023
6-IC13	EI-358845	IC TA7473
6-IC14	EI-200495	IC HD14013BP
6-IC15	EI-328693	IC HD14070BP
6-IC16	EI-353800	IC HA11772
6-IC17	EI-358853	IC BA235
6-IC18	EI-356455	IC BU4053B
6-TR1to10	ET-308141	TR 2SC2603 G
6-TR11	ET-360695	TR 2SD1302 S,T
6-TR12to22	ET-308141	TR 2SC2603 G
6-TR23	ET-308141	⚠ TR 2SC2603 G
6-TR24,25	ET-308141	TR 2SC2603 G
6-TR26,27	ET-308141	⚠ TR 2SC2603 G
6-TR28	ET-321644	TR 2SC1213 C
6-TR29to44	ET-308141	TR 2SC2603 G
6-TR45	ET-360695	TR 2SD1302 S,T
6-TR46to50	ET-308141	TR 2SC2603 G
6-TR51to55	ET-308472	TR 2SA1115 E,F,G
6-TR56	ET-308471	⚠ TR 2SA1115 E,F,G
6-TR57to59	ET-308472	TR 2SA1115 E,F,G
6-TR60	ET-308472	⚠ TR 2SA1115 E,F,G
6-TR61	ET-349366	TR 2SC3402
6-TR62,63	ET-308472	TR 2SA1115 E,F,G
6-TR64	ET-308472	TR 2SA1115 E,F,G [EG]
6-TR65to67	ET-308472	TR 2SA1115 E,F,G
6-TR68	ET-308141	TR 2SC2603 G [EG]
6-TR69to73	ET-352994	TR 2SC3401
6-TR74to82	ET-349366	TR 2SC3402
6-TR84	ET-356224	⚠ TR 2SA1286 G,H,J
6-TR85	ET-352994	TR 2SC3401
6-D1to21	ED-344280	D SILICON H GMA-01-FY2 F05
6-D22,23	ED-344280	D SILICON H GMA-01-FY2 F05 [EG,EO,EO-G]
6-D24,25	ED-344280	D SILICON H GMA-01-FY2 F05
6-D26	ED-344280	D SILICON H GMA-01-FY2 F05 [EG, EO, EO-G]
6-D27to30	ED-344280	D SILICON H GMA-01-FY2 F05
6-D31	ED-523427	D SILICON H 1SS16
6-VR1,2	EV-356577	R S-FIX H H0615C 3P 103
6-VR3to7	EV-356579	R S-FIX H H0615C 3P 102
6-VR8	EV-356575	R S-FIX H0615C 3P 222
6-VR9	EV-356576	R S-FIX H H0615C 3P 472
6-VR10	EV-337949	R S-FIX H TM64K3 3P 0.30W 103
6-VR11	EV-358860	R S-FIX H H0615C 3P 101
6-VR12	EV-356577	R S-FIX H H0615C 3P 103
6-VR13,14	EV-356575	R S-FIX H H0615C 3P 222
6-VR15	EV-356583	R S-FIX H H0615C 3P 332
6-VR16	EV-356582	R S-FIX H H0615C 3P 473
6-VR17	EV-356575	R S-FIX H H0615C 3P 222
6-VR18	EV-356576	R S-FIX H H0615C 3P 472
6-VR19	EV-356583	R S-FIX H H0615C 3P 332
6-DL1	EH-353817	DL EFD-VN645A83F
6-DL2	EH-359258	DL EFD-VN645A83H
6-DL3	EH-358801	DL EFD-BR124A13V
6-FL1	EH-345113	FILTER LC LP LJ25LP3.4M01-32
6-FL2	EH-356672	FILTER LC BP SLC2915 4.43MHZ
6-FL3	EH-356067	FILTER LC BP GZV-322-1A 5.06MHZ
6-FL4	EH-354086	FILTER LC DL GYV-501-1T [EXCEPT EK,ES]
6-FL5	EH-358849	FILTER CE SFE13.3MA
6-L1,2	EO-330252	COIL FIX 1 EL0606SKI 101K
6-L3to5	EO-354600	COIL FIX 1 LAL02 F05 101K
6-L6	EO-351865	COIL FIX 1 LAL02 F05 330J
6-L7	EO-354600	COIL FIX 1 LAL02 F05 101K
6-L8	EO-353900	COIL FIX 1 LAL02 F05 150K

REF. NO.	PART NO.	DESCRIPTION
6-L10,11	EO-353900	COIL FIX 1 LAL02 F05 150K
6-L12	EO-351864	COIL FIX 1 LAL02 F05 220J
6-L13	EO-353901	COIL FIX 1 LAL02 F05 560K
6-L14	EO-351869	COIL FIX 1 LAL02 F05 820K
6-L15	EO-353901	COIL FIX 1 LAL02 F05 560K
6-L16,17	EO-354600	COIL FIX 1 LAL02 F05 101K
6-L18	EO-353901	COIL FIX 1 LAL02 F05 560K
6-L19	EO-360555	COIL FIX 1 LAL02 F05 180K
6-L20	EO-351865	COIL FIX 1 LAL02 F05 330J
6-L21,22	EO-330252	COIL FIX 1 EL0606SKI 101K
6-L23	EO-354600	COIL FIX 1 LAL02 F05 101K
6-L24	EO-351869	COIL FIX 1 LAL02 F05 820K
6-L25	EO-356599	COIL FIX 1 LAL02 F05 270K
6-L26	EO-357508	COIL FIX 1 LAL02 F05 151K
6-L27,28	EO-357507	COIL FIX 1 LAL02 F05 121K
6-L29	EO-354600	COIL FIX 1 LAL02 F05 101K
6-L30	EO-353900	COIL FIX 1 LAL02 F05 150K
6-L31	EO-351868	COIL FIX 1 LAL02 F05 470K
6-L32	EO-330253	COIL FIX 1 EL0606SKI 271K
6-L33	EO-357508	COIL FIX 1 LAL02 F05 151K
6-L34	EO-330241	COIL FIX 1 EL0606SKI 221K
6-L35,36	EO-353900	COIL FIX 1 LAL02 F05 150K
6-L37	EO-361368	COIL FIX 1 L-8 222J
6-L38to40	EO-354600	COIL FIX 1 LAL02 F05 101K
6-L41	EO-353900	COIL FIX 1 LAL02 F05 150K
6-L42	EO-360140	COIL FIX 1 L-8 822J
6-L43	EO-351865	COIL FIX 1 LAL02 F05 330J
6-L44	EO-351868	COIL FIX 1 LAL02 F05 470K
6-L45	EO-351865	COIL FIX 1 LAL02 F05 330J
6-L46,47	EO-354600	COIL FIX 1 LAL02 F05 101K
6-L49,50	EO-351867	COIL FIX 1 LAL02 F05 390K
6-L51	EO-353900	COIL FIX 1 LAL02 F05 150K
6-L52,53	EO-330252	COIL FIX 1 EL0606SKI 101K
6-L54to56	EO-354600	COIL FIX 1 LAL02 F05 101K
6-L57,58	EO-351864	COIL FIX 1 LAL02 F05 220J
6-SF1	EF-347968	⚠ FUSE ICP-F10 150V 0.4A
6-TH1	EX-359254	THERMISTER ERT-D2ZHL153S
6-X1	EI-309878	OSC X'TAL 4.433619MHZ
6-X2	EI-322347	OSC X'TAL 4.435571MHZ
6-VC1	EC-346764	C S-FIX H ECR-HA020D11 4-20
6-VC2	EC-346765	C S-FIX H ECR-HA010A11 2.8-10
6-C44	EC-332052	C EC V F05 NP SM 4R7M 35DC
6-C101	EC-200948	C EC V F05 NP SM 1R0M 50DC
6-C115,309	EC-332052	C EC V F05 NP SM 4R7M 35DC
6-C313	EC-357966	C EC S05 SU 102M 10DC
6-C321	EC-332052	C EC V F05 NP SM 4R7M 35DC
6-C418	EC-307793	C EC V F05 NP SM 220M 10DC
6-1A	EJ-357891	JACK PLATE VIDEO 606EG [EG,EO]
6-1B	EJ-357890	JACK PLATE VIDEO 606EA [EK,ES,EZ,EA]
6-1C	EJ-357892	JACK PLATE VIDEO 606EG-G [EO-G]
6-2	ZS-357528	DELL TIGHT BR30×08STL CMT [PC BOARD FIX]
6-3	ZS-356675	PLX BR30×10STL BLUE [PC BOARD FIX]
6-4	ZS-356677	DELL TIGHT BR30×06STL BLUE [PC BOARD FIX]

7. FIFI AUDIO PC BOARD

REF. NO.	PART NO.	DESCRIPTION
7-IC1	EI-345759	IC LC7530
7-IC2	EI-359325	IC M50760-368P B-PAL
7-IC3	EI-358500	IC HA12072NT
7-IC4	EI-358501	IC HA12074NT
7-IC5	EI-358502	IC M51687AP
7-IC6	EI-358504	IC μPC1522HA
7-IC7	EI-352714	IC HA11752
7-IC8,9	EI-K5001A010A	IC AF2401
7-IC301	EI-358505	IC μPC1520CA
7-IC302	EI-358506	IC μPC1513HA
7-TR1	ET-200986	⚠ TR 2SD863-V8 F
7-TR2,3	ET-349081	TR 2SC3383 S,T
7-TR4	ET-308472	⚠ TR 2SA1115 E,F,G
7-TR5,6	ET-349081	TR 1SC3383 S,T
7-TR7	ET-354414	TR DTC144ES
7-TR8,9	ET-200986	⚠ TR 2SD863-V8 F
7-TR12	ET-308141	TR 2SC2603 G
7-TR13to16	ET-354414	TR DTC144ES
7-TR17	ET-308141	TR 2SC2603 G
7-TR19	ET-349725	TR 2SA1391 S,T
7-TR20,21	ET-349081	TR 2SC3383 S,T
7-TR22	ET-200986	TR 2SD863-V8 F
7-TR23,24	ET-308141	TR 2SC2603 G
7-TR25to27	ET-338324	TR 2SD1012-V H
7-TR28	ET-354414	TR DTC144ES
7-TR29	ET-354370	TR DTA124ES
7-TR30	ET-354414	TR DTC144ES
7-TR301	ET-308141	TR 2SC2603 G
7-TR302	ET-354414	TR DTC144ES
7-D1	ED-302269	D ZENER H HZ5 A2
7-D2	ED-316389	⚠ D ZENER H HZ11 A2
7-D3,4	ED-344280	D SILICON H GMA-01-FY2 F05
7-D5,6	ED-309069	⚠ D ZENER H HZ6 B2
7-D7to10	ED-344280	D SILICON H GMA-01-FY2 F05
7-D13,14	ED-344280	D SILICON H GMA-01-FY2 F05
7-D15	ED-300035	D ZENER H HZ6 B3
7-D16	ED-344280	D SILICON H GMA-01-FY2 F05
7-D18,19	ED-344280	D SILICON H GMA-01-FY2 F05
7-D301,302	ED-344280	D SILICON H GMA-01-FY2 F05
7-VR1,2	EV-358829	R S-FIX H H0615C 3P 223
7-VR3,4	EV-356577	R S-FIX H0615C 3P 103
7-VR5	EV-358862	R S-FIX H H0615C 3P 474
7-VR6	EV-356579	R S-FIX H H0615C 3P 102
7-VR7	EV-356577	R S-FIX H H0615C 3P 103
7-VR8	EV-358829	R S-FIX H H0615C 3P 223
7-VR9	EV-356579	R S-FIX H H0615C 3P 102
7-VR10	EV-356577	R S-FIX H H0615C 3P 103
7-VR11	EV-358829	R S-FIX H H0615C 3P 223
7-VR12,13	EV-358860	R S-FIX H H0615C 3P 101
7-VR301	EV-356579	R S-FIX H H0615C 3P 102
7-VR302	EV-358829	R S-FIX H H0615C 3P 223
7-VR303	EV-356582	R S-FIX H H0615C 3P 473
7-FL1,2	EH-360327	FILTER LC LP FX-100E
7-FL3	EH-360324	FILTER LC BP LJ25BP1.4M03-32
7-FL4	EH-360326	FILTER LC BP LJ25BP1.8M03-32
7-FL301	EO-353774	COIL TUN2 VS-B-P
7-L1	EO-330252	COIL FIX 1 EL0606SKI 101K
7-L2,3	EO-357507	COIL FIX 1 LAL02 F05 121K
7-L4,5	EO-354600	COIL FIX 1 LAL02 F05 101K
7-L6to8	EO-330252	COIL FIX 1 EL0606SKI 101K
7-L9	EO-353901	COIL FIX 1 LAL02 F05 560K
7-L10	EO-330252	COIL FIX 1 EL0606SKI 101K
7-L301	EO-458932	COIL FIX 1 FL7H 222J
7-L302	EO-321254	COIL FIX 1 FL07H 562J
7-L303	EO-443722	COIL FIX 1 FL09H102J
7-SF1	EF-347968	⚠ FUSE ICP-F10 150V 0.4A
7-T301	EO-356442	COIL OSC 1 0512-071
7-C15,32	EC-325320	C EC V F05 NP AWA 2R2M 50DC
7-C71	EC-314990	C STY V S05 CQFS 101J 50DC
7-C74	EC-307494	C STY V F05 CQ09S 331J 50DC
7-C88	EC-314990	C STY V S05 CQFS 101J 50DC
7-C89	EC-307494	C STY V F05 CQ09S 331J 50DC
7-1	ZS-356676	PLX BR30×08STL BLUE

8. LEVEL METER PC BOARD

REF. NO.	PART NO.	DESCRIPTION
8-1	EM-361786	IND LE LT-1162 GRAPH
8-D1	ED-352723	D LED LD-603MG GREEN
8-D2	ED-354313	D LED EBG3423S GREEN
8-SW1	ES-357786	SW TACT SKHHPC011A
8-SW2	ES-201527	SW SLIDE SSS212 1-01-02N

9. SERVO (A) PC BOARD

REF. NO.	PART NO.	DESCRIPTION
9-IC1	EI-353867	IC LC4077
9-IC2	EI-356457	IC BU4013B
9-IC3	EI-354400	IC BU4011B
9-IC4	EI-357040	IC BA6302A
9-IC5	EI-356288	IC BA225A
9-IC6	EI-347781	IC LA6393D
9-IC7	EI-360316	IC BA6305
9-IC8	EI-353478	IC AN6881
9-IC9	EI-353478	IC AN6881
9-IC10	EI-354401	IC BU4066B
9-IC11	EI-353477	IC μPC1526C
9-IC12	EI-349719	IC M5218P
9-IC13	EI-354401	IC BU4066B
9-TR1to4	ET-309434	TR 2SD636 Q,R,S,T
9-TR5	ET-336845	TR 2SB641 Q,R,S,T
9-TR6	ET-309434	TR 2SD636 Q,R,S,T
9-TR7	ET-336845	TR 2SB641 Q,R,S,T
9-TR8	ET-309434	TR 2SD636 Q,R,S,T
9-TR9	ET-336845	TR 2SB641 Q,R,S,T
9-TR10,11	ET-309434	TR 2SD636 Q,R,S,T
9-TR12	ET-356224	⚠ TR 2SA1286 G,H,J
9-TR13	ET-309434	TR 2SD636 Q,R,S,T
9-TR14	ET-356224	⚠ TR 2SA1286 G,H,J
9-TR15	ET-336845	TR 2SB641 Q,R,S,T
9-TR16	ET-309434	TR 2SD636 Q,R,S,T
9-D1to15	ED-344280	D SILICON H GMA-01-FY2 F05
9-VR1	EV-360317	R S-FIX V RHLON 3P 0.3W 104
9-VR2	EV-348204	R S-FIX H H0651A 3P 0.05W 683
9-VR3	EV-336769	R S-FIX H H0621A 3P 0.30W 473
9-TH1	EX-359420	⚠ POSISTER PTH62G08BD1R0N016
9-R37	ER-200380	R MF H F05 1/6W 5601F
9-R38	ER-356337	R MF H F05 1/6W 3601F
9-R39	ER-343989	R MF H F05 1/6W 1001F
9-R40,41	ER-340554	R MF H F05 1/6W 5602F
9-R48	ER-200376	R MF H F05 1/6W 4702F
9-R60	ER-349195	R MF H F05 1/6W 6201F
9-R61	ER-353585	R MF H F05 1/6W 4701F
9-R66	ER-356574	R MF H F05 1/6W 1603F
9-C12	EC-361965	C EC V F05 NP SRA 2R2M 35.0DC
9-C28	EC-361682	C COMP V HSC 273J 50DC
9-C47	EC-361966	C EC V F05 NP SRA 100M 16.0DC
9-1	ZS-356677	DELL TIGHT BR30×06STL BLUE [PC BOARD FIX]

10. SERVO (B) PC BOARD

REF. NO.	PART NO.	DESCRIPTION
10-IC201	EI-349719	IC M5218P
10-IC202	EI-356289	IC BA226A
10-IC203	EI-328593	IC HD14053BP
10-IC204	EI-353695	IC BA634
10-IC205	EI-353475	IC μPC1504C
10-IC206	EI-354401	IC BU4066B
10-IC207	EI-356288	IC BA225A
10-IC208	EI-349719	IC M5218P
10-IC209	EI-330986	⚠ IC TA78L009AP
10-TR201	ET-309434	TR 2SD636 Q,R,S,T
10-TR202	ET-360824	TR DTC144E F
10-TR203	ET-309434	TR 2SD636 Q,R,S,T
10-TR205	ET-336845	TR 2SB641 Q,R,S,T
10-TR206to208	ET-309434	TR 2SD636 Q,R,S,T
10-TR209,210	ET-360824	TR DTC144E F
10-TR211	ET-336845	TR 2SB641 Q,R,S,T
10-TR212	ET-336845	TR 2SB641 Q,R,S,T
10-D201to214	ED-344280	D SILICON H GMA-01-FY2 F05
10-VR201to206	EV-361358	R S-FIX H H0624C 3P 030W 104
10-VR207	EV-356444	R S-FIX H H0624C 3P 0.30W 683
10-VR208	EV-356445	R S-FIX H H0624C 3P 0.30W 473
10-VR209	EV-361358	R S-FIX H H0624C 3P 030W 104
10-VR210	EV-356448	R S-FIX H H0624C 3P 0.30W 154
10-VR211	EV-356447	R S-FIX H H0624C 3P 0.30W 333
10-VR212	EV-356445	R S-FIX H H0624C 3P 0.30W 473
10-TH201	EX-338414	⚠ POSISTER PTH61G27BD2R2N
10-R201	ER-200381	R MF H F05 1/6W 1003F
10-R202	ER-340544	R MF H F05 1/6W 1002F
10-R203,204	ER-361679	R MF H F05 1/6W 4700F
10-R205	ER-340544	R MF H F05 1/6W 1002F
10-R206,207	ER-356344	R MF H F05 1/6W 1203F
10-R210	ER-336972	R MF H F05 1/6W 1303F
10-R211	ER-356344	R MF H F05 1/6W 1203F
10-R212	ER-336972	R MF H F05 1/6W 1303F
10-R213	ER-356344	R MF H F05 1/6W 1203F
10-R214	ER-336974	R MF H F05 1/6W 2403F
10-R215	ER-356344	R MF H F05 1/6W 1203F
10-R222	ER-336754	R MF H F05 1/6W 2002F
10-R223	ER-340541	R MF H F05 1/6W 2203F
10-R224	ER-200379	R MF H F05 1/6W 3901F
10-R225	ER-340544	R MF H F05 1/6W 1002F
10-R226	ER-353107	R MF H F05 1/6W 2202F
10-R227	ER-340554	R MF H F05 1/6W 5602F
10-R228	ER-361680	R MF H F05 1/6W 3602F
10-R230	ER-337339	R MF H F05 1/6W 3902F
10-R238	ER-352348	R MF H F05 1/6W 1501F
10-R239	ER-362061	R THERMO H 3000PPM 1/4W 103J
10-R265	ER-353064	R MF H F05 1/6W 1502F
10-R266,268	ER-200522	R MF H F05 1/6W 2201F
10-R269,270	ER-340544	R MF H F05 1/6W 1002F
10-C211	EC-361683	C COMP V HSC 563J 50DC
10-C222	EC-361882	C COMP V HSC 104J 50DC
10-C234	EC-361968	C EC V F05 NP SRA 4R7M 16.0DC

11. OPERATION PC BOARD

REF. NO.	PART NO.	DESCRIPTION
11-IC1	EI-360089	IC MB88501-352M OPE3
11-IC2	EI-353893	IC M54565P
11-IC3	EI-354399	IC BU4001B
11-IC4	EI-348111	IC LC4071B
11-IC5	EI-356370	IC LA7224
11-TR1,2	ET-336845	TR 2SB641 Q,R,S,T
11-TR3to6	ET-356153	TR 2SB643 Q,R,S,T
11-TR7,8	ET-309434	TR 2SD636 Q,R,S,T
11-D1	ED-347777	D LED BR5628S RED
11-D2,3	ED-347776	D LED BG5608S GREEN
11-D4to7	ED-347777	D LED BR5628S RED
11-D8	ED-356359	D LED PR5531K RED [EZ,EA]
11-D9	ED-356359	D LED PR5531K RED [EA,EO,EO-G]
11-D10	ED-356367	D LED AA5531K ORANGE [EA,EO,EO-G]
11-D11,13	ED-356359	D LED PR5531K RED
11-D15	EM-353891	IND LE GL3E416
11-D16	ED-348990	D SILICON H DS446
11-D17to20	ED-344280	D SILICON H GMA-01-FY2 F05
11-D21	ET-330717	PHOTO SENSOR NJL1644L
11-D22,23	ED-344280	D SILICON H GMA-01-FY2 F05
11-SW1	ES-353708	SW SLIDE SSSY12083A 2-02-03N
11-SW2to10	ES-347755	SW TACT EVQ-QSE05T
11-SW12to20	ES-347755	SW TACT EVQ-QSE05T
11-SW21	ES-347755	SW TACT EVQ-QSE05T [EZ,EA]
11-SW22to24	ES-347755	SW TACT EVQ-QSE05T
11-FL1	EO-356372	COIL TUN 1 038-332 38KHZ
11-SF1	EF-347968	⚠ FUSE ICP-F10 150V 0.4A
11-X1	EI-356371	OSC X'TAL MS-309 4.194304MHZ
11-IB1	EH-347743	COMP R RKC1/8B4 103J
11-1	ZW-259503	PW31×080×050NYL [PC BOARD FIX]
11-2	ZS-356676	PLX BR30×08STL BLUE [PC BOARD FIX]

12. MECHA DRIVE PC BOARD

REF. NO.	PART NO.	DESCRIPTION
12-IC1	EI-353851	IC MB88305-P
12-IC2	EI-361554	IC MB88301A-P
12-IC3	EI-356811	IC M5224P
12-IC4	EI-347779	IC LA6393S
12-IC5,6	EI-353421	⚠ IC BA6229
12-TR2,3	ET-308141	TR 2SC2603 G
12-TR4to7	ET-308472	TR 2SA1115 E,F,G
12-TR8	ET-308141	TR 2SC2603 G
12-TR10,11	ET-348948	⚠ TR 2SD1273 P,Q
12-TR12	ET-308141	TR 2SC2603 G
12-TR13	ET-306719	TR 2SC2236 O,Y
12-TR14to16	ET-308472	TR 2SA1115 E,F,G
12-TR17	ET-355669	TR 2SC3246 G,H,J
12-TR19	ET-308472	TR 2SA1115 E,F,G
12-TR24	ET-357546	TR 2SB895A P,Q,R
12-TR26	ET-308141	TR 2SC2603 G
12-D1	ED-357754	⚠ D SILICON DS135D 200/1.0A
12-D3,4	ED-344280	D SILICON H GMA-01-FY2 F05
12-D5	ED-357754	⚠ D SILICON DS135D 200/1.0A
12-D6,7	ED-346631	D ZENER H HZ36 3
12-D8,9	ED-331626	D ZENER H HZ3 B2
12-D10,11	ED-624903	D SILICON H 1S2473
12-D12	ED-344280	D SILICON H GMA-01-FY2 F05
12-D17,18	ED-344280	D SILICON H GMA-01-FY2 F05
12-D19	ED-348990	D SILICON H DS446
12-D22	ED-624903	D SILICON H 1S2473
12-D200	ED-348205	D SILICON V MC931 DOUBLE
12-VR3	EV-353425	R S-FIX H RVF6P01 3P 103
12-TH1	EX-355657	⚠ POSISTER PTH61G27BD6R8N
12-X1	EI-322347	OSC X'TAL 4.435571MHZ
12-SF1	EF-346880	⚠ FUSE ICP-F15 150V 0.6A
12-IB1	EH-353789	COMP R RKC1/8B6 103J
12-IB2	EH-347743	COMP R RKC1/8B4 103J
12-IB3	EH-351973	COMP R RKC1/8B4 472J
12-IB4	EH-353790	COMP R RKC1/8B4 223J
12-IB5	EH-351973	COMP R RKC1/8B4 472J
12-R19	ER-353878	⚠ R OMF H S15 FS 1W 2R2J
12-R42,43	ER-333582	⚠ R CB H S15 FS RDS 1/2W 2R2J
12-R45	ER-353878	⚠ R OMF H S15 FS 1W 2R2J
12-1	ZS-357528	DELL TIGHT BR30×08STL CMT [PC BOARD FIX]
12-2	ZS-356287	DELL TIGHT BR30×06STL CMT [PC BOARD FIX]

13. SYSTEM CONTROL PC BOARD

REF. NO.	PART NO.	DESCRIPTION
13-IC1	EI-360087	IC MB8841-1429J B-PAL
13-IC2	EI-353867	IC LC4077
13-TR1,2	ET-308141	TR 2SC2603 G
13-TR3to5	ET-356224	⚠ TR 2SA1286 G,H,J
13-TR6	ET-308472	TR 2SA1115 E,F,G
13-D1to5	ED-344280	D SILICON H GMA-01-FY2 F05
13-X1	EI-349372	OSC CE CSA4.00MG 4MHZ
13-SF1	EF-347968	⚠ FUSE ICP-F10 150V 0.4A
13-IB1	EH-346822	COMP C B7ZC0716-33N
13-IB2	EH-358855	COMP C B5RC0124-33N
13-IB3	EH-360306	COMP R RKC1/8B7 103J
13-1	ZS-358026	PLX BR30×06STL BLUE [PC BOARD FIX]

14. DEMODULATOR PC BOARD

REF. NO.	PART NO.	DESCRIPTION
14-IC1A	EI-357092	IC MB88505-285M IMS-E [EG,EK,ES,EO]
14-IC1B	EI-353783	IC MB88505-266M IMS-U[EZ,EA]
14-IC1C	EI-357093	IC MB88505-293H IMS-G[EO-G]
14-IC2	EI-361554	IC MB88301A-P
14-IC3	EI-347779	IC LA6393S
14-IC4	EI-347773	IC MB88303M
14-IC5	EI-353848	IC LA7808
14-IC6	EI-337530	⚠ IC μPC574J
14-IC7	EI-355709	IC M54572L
14-TR1	ET-308472	TR 2SA1115 E,F,G [EG,EK,ES,EZ]
14-TR3,4	ET-308141	TR 2SC2603 G
14-TR5	ET-349882	⚠ TR 2SA1283 D,E
14-TR6to11	ET-308141	TR 2SC2603 G
14-TR12	ET-308472	TR 2SA1115 E,F,G
14-TR13	ET-308141	TR 2SC2603 G
14-TR14	ET-308141	TR 2SC2603 G [EG,EK,ES,EZ]
14-TR15,101	ET-308141	TR 2SC2603 G
14-TR102	ET-356224	⚠ TR 2SA1286 G,H,J
14-TR103	ET-308472	TR 2SA1115 E,F,G
14-TR104	ET-308141	TR 2SC2603 G

REF. NO.	PART NO.	DESCRIPTION
14-TR105	ET-356236	TR FET 2SK363 GR.BL
14-TR106	ET-308141	TR 2SC2603 G
14-TR110	ET-308141	TR 2SC2603 G [EA,EO]
14-TR111	ET-308141	TR 2SC2603 G [EG,EK,ES,EZ]
14-D1	ED-351392	D ZENER H HZ9 B [EZ,EA,EO]
14-D3	ED-344280	D SILICON H GMA-01-FY2 F05
14-D4	ED-346622	D ZENER H HZ30 1 [EZ,EA,EO]
14-D5	ED-344280	D SILICON H GMA-01-FY2 F05
14-D6	ED-348205	⚠ D SILICON V MC931 DOUBLE
14-D7,8	ED-344280	D SILICON H GMA-01-FY2 F05
14-D9	ED-360318	D SILICON H MA700
14-D10to13	ED-344280	D SILICON H GMA-01-FY2 F05
14-D14	ED-305655	D ZENER H HZ4 B3
14-D101,102	ED-344280	D SILICON H GMA-01-FY2 F05
14-D103	ED-624903	D SILICON H 1S2473
14-L1	EO-330252	COIL FIX 1 EL0606SKI 101K
14-VR1	EV-358808	R S-FIX H KVSF637A 3P 152
14-VR2	EV-356324	R S-FIX H KVSF637A 3P 103
14-X1,2	EI-349372	OSC CE CSA4.00MG 4MHZ
14-IB1,2	EH-353788	COMP R RKC1/8B15 103J
14-IB3	EH-347743	COMP R RKC1/8B4 103J
14-R12	ER-356133	⚠ R OMF H S15 FS 1W 512J
14-R16	ER-357764	R MF H F05 1/6W 6040F
14-R18,19	ER-356338	R MF H F05 1/6W 1201F
14-R24	ER-345751	⚠ R FUSE ERD2FC S10 1/4W 15ROG
14-R33	ER-338208	R MF H F05 1/6W 1002F
14-R34	ER-336751	R MF H F05 1/6W 1103F
14-R35	ER-343997	R MF H F05 1/6W 2001F
14-R101	ER-356338	R MF H F05 1/6W 1201F
14-R102	ER-357764	R MF H F05 1/6W 6040F
14-R103	ER-356338	R MF H F05 1/6W 1201F
14-CB1	EH-354077	COMP C B7ZC0711-33N
14-C13A	EC-358805	C TT V EF R47M 35.0DC [EG,EK,ES,EZ]
14-C13B	EC-363534	C TT V EF R47M 50.0DC [EA,EO,EO-G]
14-C101,103	EC-356352	C TT V EF R68M 50.0DC
14-BT1	EZ-356237	BATTERY P-01H-F4N4
14-1A	BV-V1030A900B	VIF BLK VS-301EG-G [EG]
14-1B	BV-V1030A900E	VIF BLK VS-303ES [ES]
14-1C	BV-V1030A900F	VIF BLK VS-303EZ [EZ]
14-1D	BV-V1030A900G	VIF BLK VS-301EK [EK]
14-1E	BV-V1030B900A	VIF BLK VS-606EA
14-1F	BV-V1030B900B	VIF BLK VS-606EO
14-1G	BV-V1030B900C	VIF BLK VS-607EO-G

15. VIF BLOCK (VS-603EG/EK/ES/EZ)

REF. NO.	PART NO.	DESCRIPTION
15-1A	EE-353831	TV TUNER TEED1-A10A [EG]
15-1B	EE-353834	TV TUNER TEEZ1-024A [ES]
15-1C	EE-356135	TV TUNER TEEZ1-032A [EZ]
15-1D	EE-353832	TV TUNER TEEB1-020A [EK]
15-IC1	EI-705495	IC TA7607AP
15-IC2	EI-714602	IC TA7337P
15-D1	ED-714603	D VARACTOR 1SV70-20FG
15-VR1	EV-713607	R S-FIX RVF6P01-103 [EXCEPT EK]
15-VR2	EV-713607	R S-FIX RVF6P01-103
15-VR3	EV-714599	R S-FIX RVF6P01-202
15-CF1A	EH-714625	FILTER SAW SAF38.9MZ70Z [EG,EZ]
15-CF1B	EH-714628	FILTER SAW SAF39.5MZ70Z [EK]
15-CF1C	EH-714627	FILTER SAW SAF38.9MW70Z [ES]
15-CF2A	EH-742622	FILTER CE TPS 5.5MHZ [EG,EZ]
15-CF2B	EH-705502	FILTER CE TPS 6MHZ [EK,ES]
15-CF3A	EH-705499	FILTER CE SFE 5.5MHZ [EG,EZ]
15-CF3B	EH-705500	FILTER CE SFE 6MHZ [EK,ES]
15-L1A	EO-714604	COIL FIX 1 LAL02 R68M [EXCEPT EK]
15-L1B	EO-714605	COIL FIX 1 LAL02 R39M [EK]
15-L2	EO-714606	COIL FIX 1 LAL02 2R7M
15-L3A	EO-714607	COIL RF 6F16112B1 [EXCEPT ES]
15-L3B	EO-714609	COIL RF 6F16112B4 [ES]
15-L4A	EO-714610	COIL RF 6F16113B1 [EG,ES,EZ]
15-L4B	EO-714612	COIL RF 6F16113B2 [EK]
15-L5A	EO-714614	COIL RF 6F16115B1 [EG,ES,EZ]
15-L5B	EO-714615	COIL RF 6F16115B2 [EK]
15-L6	EO-714617	COIL FIX 1 LAL02 120K
15-L7	EO-714618	COIL FIX 1 LAL02 150K
15-L8A	EO-714619	COIL FIX 1 LAL02 180M [EG,EZ]
15-L8B	EO-714620	COIL FIX 1 LAL02 150M [EK,ES]
15-L9A	EO-714621	COIL SIF-DET 5A 6F16122B1 [EG,EZ]
15-L9B	EO-714623	COIL SIF-DET 5A 6F16122B2 [EK,ES]
15-C19	EC-749821	C TT R47M 35V
15-C28	EC-714601	C MMY DEP 682J 50DC

15A. VIF BLOCK (VS-606EA/EO, VS-607EO-G)

REF. NO.	PART NO.	DESCRIPTION
15A-1A	EE-353835	TV TUNER TEES1-025A [EA]
15A-1B	EE-353833	TV TUNER TEEE1-A07A [EO]
15A-1C	EE-359413	TV TUNER TEEE1-A13 [EO-G]
15A-IC1,2	EI-705494	IC TA7607AP
15A-IC3,4	EI-749828	IC μPC1391H
15A-IC5	EI-717488	IC LA7755M
15A-IC101	EI-346071	IC M5218L-21
15A-IC102	EI-310036	IC TC4066BP
15A-D1	ED-714603	D VARACTOR 1SV70-20FG
15A-D2,3	ED-717489	D SILICON H 1SS119-04TJ
15A-D103,104	ED-331667	D ZENER H HZ7 A1
15A-D105	ED-305706	D ZENER H HZ7 B3
15A-VR1,2	EV-713607	R S-FIX RVF6P01-103
15A-VR3	EV-353423	R S-FIX H RVF6P01 3P 503
15A-VR4	EV-717487	R S-FIX H RVF6P01 104
15A-VR101	EV-714581	R S-FIX RVF6P01-502
15A-VR102	EV-713607	R S-FIX RVF6P01-103
15A-VR104,105	EV-714599	R S-FIX RVF6P01-202
15A-CF1A	EH-714625	FILTER SAW SAF38.9MZ70Z [EO]
15A-CF1B	EH-714626	FILTER SAW SAF36.9MZ70Z [EA]
15A-CF1C	EH-717503	FILTER SAW SAF38.9MZH71Z [EO-G]
15A-CF2	EH-742622	FILTER CE TPS 5.5MHZ
15A-CF3A	EH-717504	FILTER SAW SAF33.4MD727 [EO,EO-G]
15A-CF3B	EH-717505	FILTER SAW SAF31.4MDA71Z [EA]
15A-CF4	EH-712603	FILTER CE SFT 5.5MA
15A-CF5	EH-717506	FILTER CE CDA 5.5MC19A
15A-CF6	EH-712604	FILTER CE SFT 5.74MA
15A-CF7	EH-712605	FILTER CE CDA5.74MC19A
15A-CF8	EH-717507	FILTER CE SFK 54.7B
15A-L1A	EO-717490	COIL FIX 1 EL0606RA-R68M [EA,EO]
15A-L1B	EO-717493	COIL FIX 1 EL0606RA-R82M [EO-G]

REF. NO.	PART NO.	DESCRIPTION
15A-L2A	EO-717492	COIL FIX 1 EL0606RA-1R2M [EA,EO]
15-L2B	EO-717494	COIL FIX 1 EL0606RA-1R5M [EO-G]
15A-L3A	EO-717495	COIL RF 7KL 6F16151B1 [EO,EO-G]
15A-L3B	EO-717496	COIL RF 7KL 6F16151B2 [EA]
15A-L4A	EO-714610	COIL RF 6F16113B1 [EO,EO-G]
15A-L4B	EO-714613	COIL RF 6R16113B3 [EA]
15A-L5A	EO-714614	COIL RF 6F16115B1 [EO,EO-G]
15A-L5B	EO-714616	COIL RF 6F16115B3 [EA]
15A-L6	EO-717497	COIL FIX 1 EL0606RA-120K
15A-L7	EO-714141	COIL FIX1 EL0606RA 15UH J
15A-L8	EO-717498	COIL FIX 1 EL0606RA-2R7M
15A-L9A	EO-717499	COIL TANK 7KL 6F16158A1 [EO,EO-G]
15A-L9B	EO-717500	COIL TANK 7KL 6F16158A2 [EA]
15A-L10	EO-717501	COIL FIX 1 EL0606RA-180K
15A-L11	EO-712599	COIL PILOT 284XNS-1054Z
15A-C15,22	EC-749821	C TT R47M 35V
15A-C39	EC-713292	C PP 1H R027K 50DC
15A-C48	EC-713291	C PP 1H R022K 50DC
15A-C49	EC-713154	C PP 1H 473J 50DC
15A-C50	EC-713155	C PP 1H 104K 50DC
15A-C108,112	EC-713291	C PP 1H R022K 50DC

16. POWER SUPPLY PC BOARD

REF. NO.	PART NO.	DESCRIPTION
	POWER SUPPLY PC BOARD	
16-IC1	EI-356381	⚠ IC STK5434
16-TR1	ET-308472	⚠ TR 2SA1115 E,F,G
16-TR2	ET-308472	TR 2SA1115 E,F,G
16-TR3to5	ET-308141	TR 2SC2603 G
16-TR6	ET-306719	TR 2SC2236 O,Y
16-TR7,8	ET-308141	TR 2SC2603 G
16-TR9	ET-356224	⚠ TR 2SA1286 G,H,J
16-TR10	ET-308141	TR 2SC2603 G
16-TR11	ET-306719	⚠ TR 2SC2236 O,Y
16-TR12	ET-306719	TR 2SC2236 O,Y
16-TR50	ET-200986	⚠ TR 2SD863-V8 F
16-D1	ED-353550	⚠ D SILICON DBA30C-K12 200/3.0A
16-D2	ED-319463	⚠ D SILICON 4B4B41 100/4.0A
16-D3,4	ED-357754	⚠ D SILICON DS135D 200/1.0A
16-D6	ED-307610	D ZENER H HZ7 A2
16-D7	ED-344280	D SILICON H GMA-01-FY2 F05
16-D8	ED-301911	D SILICON H DS448
16-D9	ED-347767	D SILICON V MC911 DOUBLE
16-D11	ED-344280	D SILICON H GMA-01-FY2 F05
16-D13	ED-357754	⚠ D SILICON DS135D 200/1.0A
16-D14	ED-344280	D SILICON H GMA-01-FY2 F05
16-D15	ED-302269	D ZENER H HZ5 A2
16-D21to23	ED-344280	D SILICON H GMA-01-FY2 F05
16-D50	ED-359232	⚠ D THYRISTER DRA2TB 100V 2.00A
16-D51,52	ED-357754	⚠ D SILICON DS135D 200/1.0A
16-D53	ED-356781	D ZENER H MA1062-L
16-D54	ED-359237	D ZENER H MA1130-H
16-D55	ED-359238	D ZENER H MA1100-L
16-D57	ED-310387	D ZENER H HZ12 B2
16-SF1	EF-346880	⚠ FUSE ICP-F15 150V 0.6A
16-TH1	EX-330533	⚠ POSISTER PTH61G27BD3R3N
16-R1,4	ER-356382	⚠ R OMF H SNP 1W R22J
16-R50	ER-552712	R CT W F10 PLATE 2W R47K
16-C1	EC-353572	⚠ C EC V S10 KME 682M 35.0DC
16-C3	EC-356383	⚠ C EC V S10 KME 103M 25.0DC
16-C13	EC-333977	C EC V CUT NP SM 101M 50DC
16-C14	EC-328081	C EC V CUT SM 221M 80DC
16-1	ZS-357920	PLX BR30x12STL BLUE [PC BOARD FIX]
	ASSEMBLY BLOCK	
16-F1A	EF-601301	⚠ FUSE SEMKO T 2.00A 250V [EG,ES,EZ,EA,EO,EO-G]
16-F1B	EF-355398	⚠ FUSE BET T 2.00A 250V [EK]
16-F2A	EF-601301	⚠ FUSE SEMKO T 2.00A 250V [EG,ES,EZ,EA,EO,EO-G]
16-F2B	EF-355398	⚠ FUSE BET T 2.00A 250V [EK]

17. SELECTOR PC BOARD

REF. NO.	PART NO.	DESCRIPTION
17-C1	EC-349921	⚠ C CE V F 103Z 400AC

18. SENSOR (S) PC BOARD

REF. NO.	PART NO.	DESCRIPTION
18-SW1	ES-354308	SW LEAF MSW-1595C
18-PH1	ET-353635	PHOTO SENSOR ON2160 Q.R.S.

19. SENSOR (T) PC BOARD

REF. NO.	PART NO.	DESCRIPTION
19-SW1	ES-347048	SW PUSH SSCSP1072A 1-01-02N
19-PH1	ET-353635	PHOTO SENSOR ON2160 Q.R.S

20. SENSOR LED PC BOARD

REF. NO.	PART NO.	DESCRIPTION
20-D1	ED-357540	D LED LN59

21. SENSOR (L) PC BOARD

REF. NO.	PART NO.	DESCRIPTION
21-TR1	ET-318308	TR PHOT PN202S
21-TR2	ET-359700	TR PHOT PN202S

22. SENSOR (R) PC BOARD

REF. NO.	PART NO.	DESCRIPTION
22-TR1	ET-318308	TR PHOT PN202S
22-D1	ED-358056	D LED LN-68 INFRARED

23. SW (EJ) PC BOARD

REF. NO.	PART NO.	DESCRIPTION
23-SW1	ES-353622	SW PUSH EVQ-WU7001 02-2

24. MOTOR PC BOARD

REF. NO.	PART NO.	DESCRIPTION
24-D1	ED-356430	D ZENER H HZS8.2E F05 B2,B3
24-PU	HC-353332	HEAD PU TP311

25. PHONE J PC BOARD

REF. NO.	PART NO.	DESCRIPTION
25-J901	EJ-358840	PHONE J 3P HSJ5061-01-440 3.5

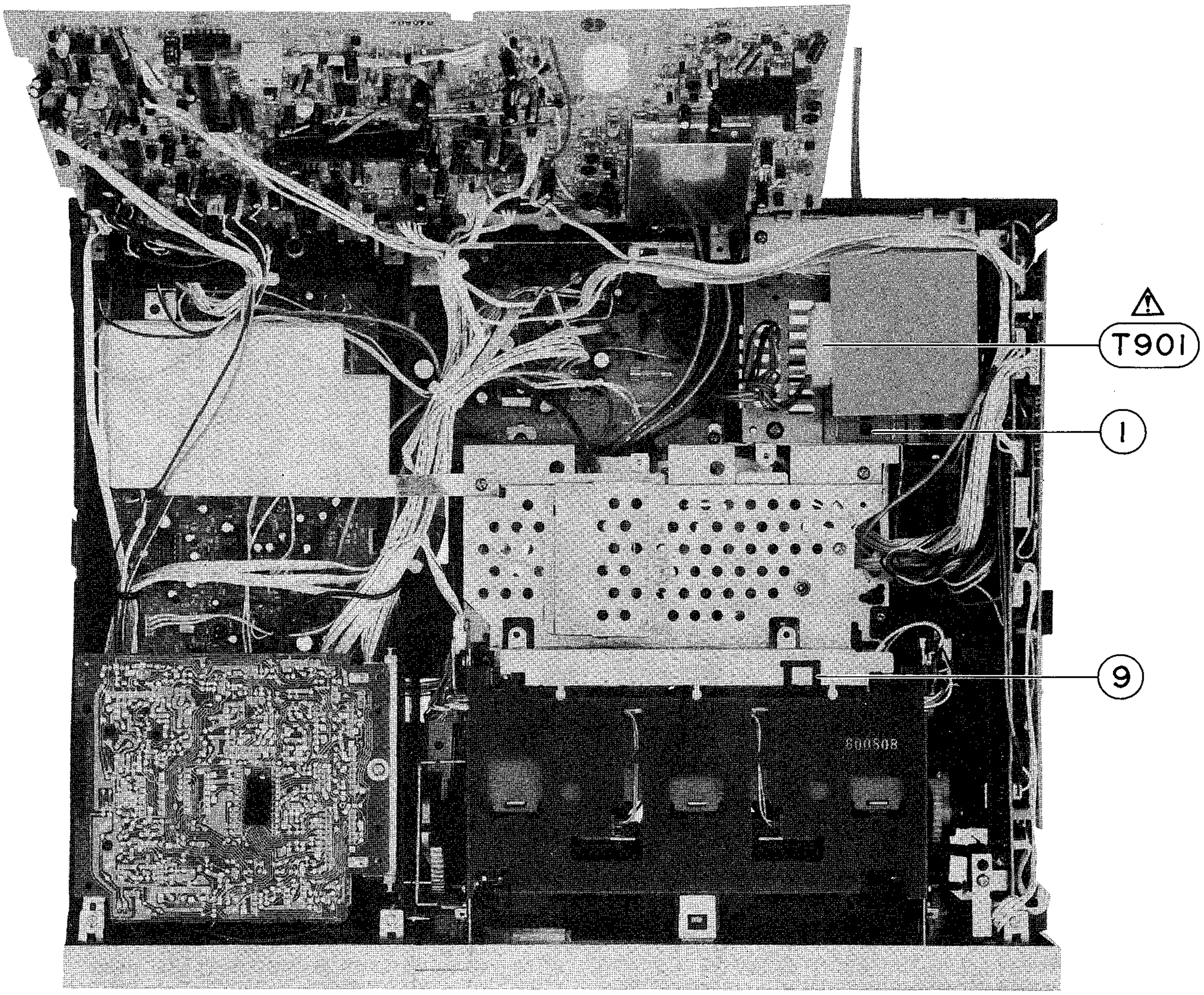
26. SERVO SUB PC BOARD

REF. NO.	PART NO.	DESCRIPTION
26-IC1	EI-356455	IC BU4053B
26-IC2	EI-337625	IC BA236
26-TR1to3	ET-352994	TR 2SC3401
26-R5	ER-364123	R MF H F05 1/6W 1503F

27. ASSEMBLY BLOCK

REF. NO.	PART NO.	DESCRIPTION
	ASSEMBLY BLOCK	
27-1	ZS-357528	DELL TIGHT BR30×08STL CMT [POWER TRANS FIX]
27-2	EZ-692908	STRAIN RELIEF SR-5N-4[EZ,EA]
27-3A	BV-353839	RF CONVERTER/BOOSTER MDLL6D023A [EG]
27-3B	BV-353840	RF CONVERTER/BOOSTER MDLL6I023A [EK,ES]
27-3C	BV-354879	RF CONVERTER/BOOSTER MDLL5D073A [EZ]
27-3D	BV-353841	RF CONVERTER SW MDLL5S150A [EA]
27-3E	BV-353842	RF CONVERTER/BOOSTER MDLL6S023A [EO,EO-G]
27-4	ZS-356675	PLX BR30×10STL BLUE [RF CONVERTER FIX]
27-5A	SP-354642A	PANEL REAR VS-603EG
27-5B	SP-354642B	PANEL REAR VS-603EK
27-5C	SP-354642C	PANEL REAR VS-603ES
27-5D	SP-354642D	PANEL REAR VS-603EZ
27-5E	SP-354642H	PANEL REAR VS-606EA
27-5F	SP-354642K	PANEL REAR VS-606EO
27-5G	SP-354642M	PANEL REAR VS-607EO-G
27-6	SZ-354739	CAP PANEL
27-7	ZS-357944	ST BR30×10STL BNI SPECIAL
27-8	SA-353927B	FOOT (2)
27-9	MZ-357839	GUIDE CASSETTE (F)
27-10A	EW-356588	⚠ AC CORD 2 CORES KP419C, LTCE2F-CB EV [EG,ES,EO,EO-G]
27-10B	EW-356589	⚠ AC CORD 3 CORES VM-0418, 3×0.75 S [EZ,EA]
27-10C	EW-356592	⚠ AC CORD 2 CORES NRBS, LC2×0.75-CB B [EK]
27-T901A	BT-353936	⚠ TRANS POWER V1027 EG 220-110 [EG]
27-T901B	BT-354342	⚠ TRANS POWER V1027 ES 250-220 [ES]
27-T901C	BT-356594	⚠ TRANS POWER V1027 EZ 230-115 [EZ]
27-T901D	BT-357703	⚠ TRANS POWER V1030EK 240-200 [EK,EA]
27-T901E	BT-356595	⚠ TRANS POWER V1027 EO 220 [EO,EO-G]
27-SW1	ES-354430	⚠ SW SLIDE 00220950 02-02-2N [EG,ES,EK]
	VIDEO PC BOARD	
6-1A	EJ-357891	JACK PLATE VIDEO 606EG [EG,EO]
6-1B	EJ-357890	JACK PLATE VIDEO 606EA [EK,ES,EZ,EA]
6-1C	EJ-357892	JACK PLATE VIDEO 606EG-G [EO-G]

ASSEMBLY BLOCK


⚠
T901
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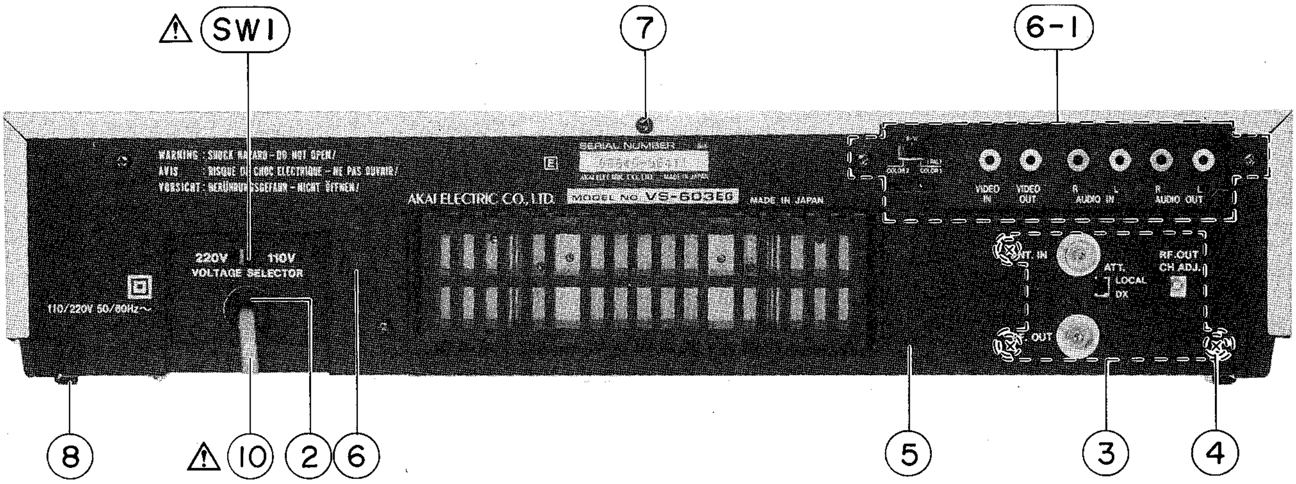
800S08


⚠ SW1
7
6-1
WARNING : SHOCK HAZARD - DO NOT OPEN!
AVIS : RISQUE DE CHOC ELECTRIQUE - NE PAS OUVRIR!
VORSICHT : BERÜHRUNGSGEFAHR - NICHT ÖFFNEN!
SERIAL NUMBER
E
AKAI ELECTRIC CO., LTD.
MODEL No. VS-603EG
MADE IN JAPAN
VIDEO IN
VIDEO OUT
R
L
AUDIO IN
R
L
AUDIO OUT
220V
110V
VOLTAGE SELECTOR
110/220V 50/60Hz~
ANT. IN
ATT.
LOCAL
DX
RF.OUT
CH ADJ.
OUT
8
⚠ 10
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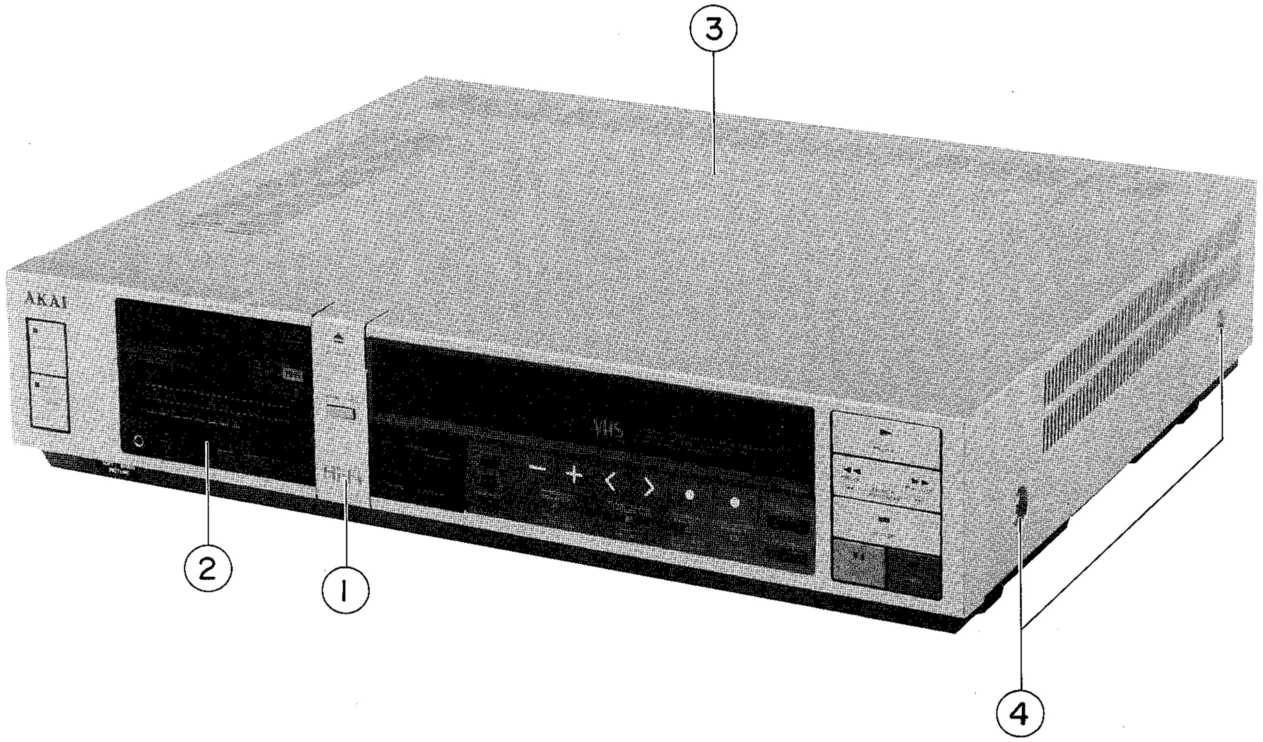
3
4

FINAL ASSEMBLY BLOCK



28. FINAL ASSEMBLY BLOCK

REF. NO.	PART NO.	DESCRIPTION
	PANEL FRONT BLOCK	
28-1A	BD-V1030A130A	PANEL FRONT BLK VS-603EG
28-1B	BD-V1030A130B	PANEL FRONT BLK VS-603EK
28-1C	BD-V1030A130C	PANEL FRONT BLK VS-603ES
28-1D	BD-V1030A130D	PANEL FRONT BLK VS-603EZ
28-1E	BD-V1030B130A	PANEL FRONT BLK VS-603EG-B
28-1F	BD-V1030B130B	PANEL FRONT BLK VS-603EK-B
28-1G	BD-V1030B130F	PANEL FRONT BLK VS-603EZ-B
28-1H	BD-V1030A130E	PANEL FRONT BLK VS-606EA
28-1I	BD-V1030A130F	PANEL FRONT BLK VS-606EO
28-1J	BD-V1030B130C	PANEL FRONT BLK VS-606EA-B
28-1K	BD-V1030B130D	PANEL FRONT BLK VS-606EO-B
28-1L	BD-V1030A130G	PANEL FRONT BLK VS-607EO-G
28-1M	BD-V1030B130E	PANEL FRONT BLK VS-607EO-GB
28-2A	SP-355395A	PLATE DECORATION (C) VS-603EG
28-2B	SP-355395B	PLATE DECORATION (C) VS-603EK
28-2C	SP-355395C	PLATE DECORATION (C) VS-603ES
28-2D	SP-355395D	PLATE DECORATION VS-603EZ
28-2E	SP-355395F	PLATE DECORATION (C) VS-606EA
28-2F	SP-355395H	PLATE DECORATION (C) VS-606EO
28-2G	SP-355395J	PLATE DECORATION (C) VS-607EO-G
	FINAL ASSEMBLY BLOCK	
28-3	SP-353796	COVER UPPER
28-3B	SP-353796B	COVER UPPER-B
28-4	ZS-357953	ST BID40×08STL NI3 SPECIAL
28-4B	ZS-357954	ST BID40×08STL BNI SPECIAL
28-5x	EW-348414	CORD PAL [ACCESSORY]

29. REMOTE CONTROL UNIT RC-V603

REF. NO.	PART NO.	DESCRIPTION
29-1A	AV-354008	REMOCON RC-V603B-E1 WIRELESS (T) [EG,EK,ES,EO]
29-1B	AV-357907	REMOCON RC-V603B-E2 WIRELESS (T) [EZ,EA]
29-1C	AV-354013	REMOCON RC-V603B-E1B WIRELESS (T) [EK-B, EG-B, EO-B]
29-1D	AV-357908	REMOCON RC-V603B-E2B WIRELESS (T) [EA-B,EZ-B]
29-1E	AV-354009	REMOCON RC-V603B-G WIRELESS (T) [EO-G]
29-1F	AV-359117	REMOCON RC-V603B-GB WIRELESS (T) [EO-GB]
29-IC1	EI-749983	IC UPD1943G
29-TR1	ET-318604	TR 2SD545NP E,F
29-D1	ED-714631	D LED TLN105A
29-D2	ED-714631	D LED TLN105A
29-D3	ED-557447	D SILICON H 1S1588
29-D4	ED-557447	D SILICON H 1S1588
29-X1	EI-710044	OSC CE CSB455EB 455KHZ

SYMBOL FOR COLOR VARIATION

NON : STANDARD COLOR
B or BL : BLACK

INDEX

PART NO.	REF. NO.
AV-354008	29-1A
AV-354009	29-1F
AV-354013	29-1C
AV-357907	29-1B
AV-357908	29-1D
AV-359117	29-1F
BA-V1030A300A	5-1A
BA-V1030A300B	5-1B
BA-V1030A300C	5-1C
BA-V1030A300D	5-1D
BA-V1030A300E	5-1E
BA-V1030A300F	5-1F
BA-V1030A310A	5-2
BA-V1030A320A	5-3
BA-V1030330A	5-4A
BA-V1030A330B	5-4B
BA-V1030A330C	5-4C
BA-V1030A330D	5-4D
BA-V1030A340F	5-9
BA-V1030A360A	5-7A
BA-V1030A360B	5-7B
BA-V1030A360C	5-7C
BA-V1030A360D	5-7D
BA-V1030A370D	5-5
BA-V1030A390A	5-6
BA-V1030B350A	5-7E
BA-V1030B350B	5-7F
BA-V1030B350C	5-7G
BD-V1030A130A	28-1A
BD-1030A130B	28-1B
BD-V1030A130C	28-1C
BD-V1030A130D	28-1D
BD-V1030A130E	28-1H
BD-V1030A130F	28-1I
BD-V1030A130G	28-1L
BD-V1030B130A	28-1E
BD-V1030B130B	28-1F
BD-V1030B130C	28-1J
BD-V1030B130D	28-1K
BD-V1030B130E	28-1M
BD-V1030B130F	28-1G
BL-B353122X1	2-5
BL-B353126	3-4
BL-B357555	2-23
BM-M3220A020A	1-12
BM-353630	3-6
BM-360149	3-M904
BR-B359158	3-29
BR-362130	3-30
BT-353936	27-T901A
BT-354342	27-T901B
BT-356594	27-T901C
BT-357703	27-T901D
BV-B352377	2-6
BV-B353329	1-11
BV-V1030A030A	2-8
BV-V1030A100A	3-9
BV-V1030A200A	1-1
BV-V1030A210C	1-2
BV-V1030A220A	1-3
BV-V1030A250A	4-1
BV-V1030A900B	5-8A
BV-V1030A900B	14-1A
BV-V1030A900E	5-8B
BV-V1030A900E	14-1B
BV-V1030A900F	5-8C
BV-V1030A900F	14-1C
BV-V1030A900G	5-8D
BV-V1030A900G	14-1D
BA-V1030B900A	5-8E
BA-V1030B900A	14-1E
BA-V1030B900B	5-8F
BA-V1030B900B	14-1F
BA-V1030B900C	5-8G
BA-V1030B900C	14-1G
BV-353839	27-3A
BV-353840	27-3B
BV-353841	27-3D
BV-353842	27-3E
BV-354879	27-3C
EC-200948	6-C101
EC-307494	7-C89
EC-307494	7-C74
EC-307793	6-C418
EC-314990	7-C88
EC-314990	7-C71
EC-325320	7-C32
EC-325320	7-C15
EC-328081	16-C14
EC-332052	6-C321
EC-332052	6-C44
EC-332052	6-C115
EC-332052	6-C309
EC-333977	16-C13
EC-346764	6-VC1
EC-346765	6-VC2
EC-349921	17-C1
EC-353572	16-C1
EC-356352	14-C101
EC-356352	14-C103
EC-356383	16-C3
EC-357966	6-C313
EC-358805	14-C13
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ET-308141	14-TR8	ET-308472	7-TR4	ET-352994	26-TR3	EV-358860	7-VR12
ET-308141	6-TR16	ET-308472	12-TR6	ET-353635	19-PH1	EV-358862	7-VR5
ET-308141	6-TR17	ET-308472	12-TR5	ET-353635	18-PH1	EV-360317	9-VR1
ET-308141	6-TR10	ET-308472	12-TR7	ET-353635	18-PH1	EV-361358	10-VR206
ET-308141	6-TR19	ET-308472	12-TR4	ET-353635	19-PH1	EV-361358	10-VR209
ET-308141	6-TR18	ET-308472	12-TR19	ET-354370	7-TR29	EV-361358	10-VR201
ET-308141	6-TR49	ET-308472	12-TR15	ET-354414	7-TR30	EV-361358	10-VR204
ET-308141	6-TR27	ET-308472	12-TR14	ET-354414	7-TR302	EV-361358	10-VR203
ET-308141	6-TR4	ET-308472	12-TR16	ET-354414	7-TR16	EV-361358	10-VR202
ET-308141	6-TR23	ET-308472	13-TR6	ET-354414	7-TR14	EV-361358	10-VR205
ET-308141	6-TR5	ET-308472	14-TR12	ET-354414	7-TR15	EV-713607	15-VR1
ET-308141	6-TR22	ET-308472	14-TR1	ET-354414	7-TR28	EV-713607	15-VR2
ET-308141	6-TR6	ET-308472	14-TR103	ET-354414	7-TR13	EV-713607	15A-VR1
ET-308141	6-TR13	ET-308472	16-TR2	ET-354414	7-TR7	EV-713607	15A-VR2
ET-308141	6-TR25	ET-308472	16-TR1	ET-355669	12-TR17	EV-713607	15A-VR102
ET-308141	6-TR24	ET-309434	9-TR4	ET-356153	11-TR4	EV-714581	15A-VR101
ET-308141	6-TR39	ET-309434	9-TR3	ET-356153	11-TR3	EV-714599	15A-VR104
ET-308141	6-TR29	ET-309434	9-TR2	ET-356153	11-TR6	EV-714599	15A-VR105
ET-308141	6-TR26	ET-309434	9-TR8	ET-356153	11-TR5	EV-714599	15-VR3
ET-308141	6-TR37	ET-309434	9-TR6	ET-356224	6-TR84	EV-717487	15A-VR4
ET-308141	6-TR34	ET-309434	9-TR1	ET-356224	9-TR14	EW-348414	28-5x
ET-308141	6-TR33	ET-309434	9-TR10	ET-356224	9-TR12	EW-356588	27-10A
ET-308141	6-TR32	ET-309434	9-TR11	ET-356224	13-TR3	EW-356589	27-10B
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ET-308141	6-TR38	ET-309434	10-TR208	ET-356224	14-TR102	EX-338414	10-TH201
ET-308141	6-TR3	ET-309434	10-TR203	ET-356224	16-TR9	EX-355657	12-TH1
ET-308141	6-TR48	ET-309434	10-TR207	ET-356236	14-TR105	EX-357642	1-TH901
ET-308141	6-TR42	ET-309434	10-TR201	ET-357546	12-TR24	EX-359254	6-TH1
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ET-308141	6-TR1	ET-309434	11-TR8	ET-359700	21-TR2	EZ-356237	14-BT1
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ET-308141	6-TR47	ET-318308	22-TR1	ET-360824	10-TR209	HC-353332	24-PU
ET-308141	6-TR46	ET-318308	21-TR1	ET-360824	10-TR210	HE-325273	2-H904
ET-308141	6-TR44	ET-318308	22-TR1	ET-360824	10-TR202	HR-353638	2-H903
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SP-354642C	27-5C
SP-354642D	27-5D
SP-354642H	27-5E
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ZS-356675	6-3
ZS-356675	27-4
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AKAI

MODEL VS-603EG/EK/ES/EZ
MODEL VS-606EA/EO
MODEL VS-607EO-G

SCHEMATIC DIAGRAM AND PC BOARDS

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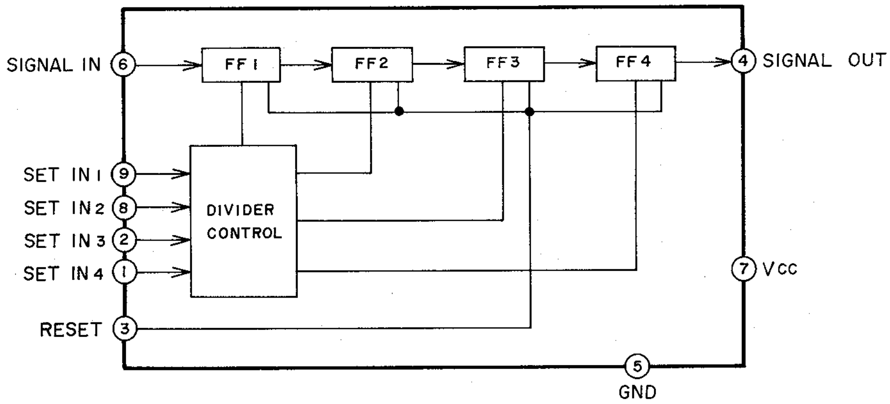
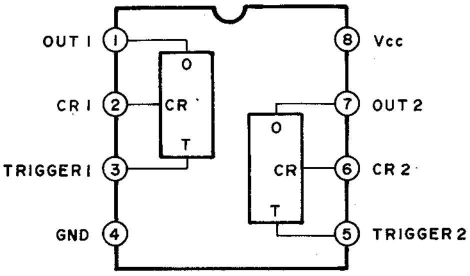
AN6881 (1~16 FREQUENCY DEVIDER)


SIGNAL IN ⑥
FF 1
FF2
FF3
FF4
④ SIGNAL OUT
SET IN 1 ⑨
SET IN 2 ⑧
SET IN 3 ②
SET IN 4 ①
DIVIDER CONTROL
⑦ Vcc
RESET ③
⑤ GND

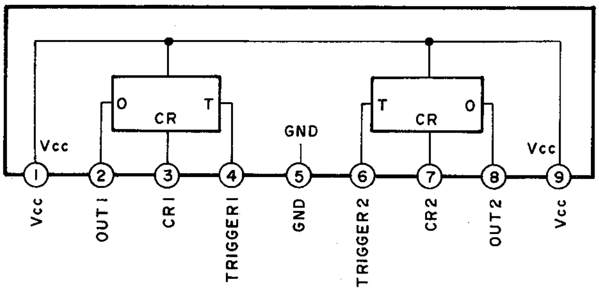
TRUTH TABLE

DEVIDED RATIO / PIN NUMBER	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
9	L	H	L	H	L	H	L	H	L	H	L	H	L	H	L	H
8	L	L	H	H	L	L	H	H	L	L	H	H	L	L	H	H
2	L	L	L	L	H	H	H	H	L	L	L	L	H	H	H	H
1	L	L	L	L	L	L	L	L	H	H	H	H	H	H	H	H

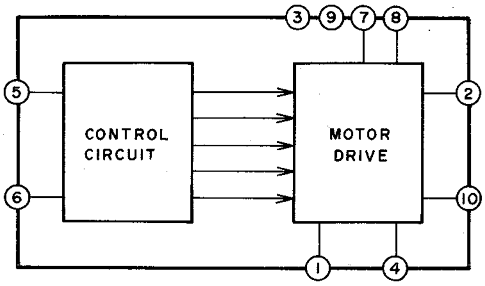
BA225A/226A (DUAL MONO MULTI)


OUT 1 ①
CR 1 ②
TRIGGER 1 ③
GND ④
⑧ Vcc
⑦ OUT 2
⑥ CR 2
⑤ TRIGGER 2
O
CR
T
O
CR
T

BA235A/236A (DUAL MONO MULTI)


O
CR
T
T
CR
O
Vcc
GND
Vcc
① Vcc
② OUT 1
③ CR 1
④ TRIGGER 1
⑤ GND
⑥ TRIGGER 2
⑦ CR 2
⑧ OUT 2
⑨ Vcc

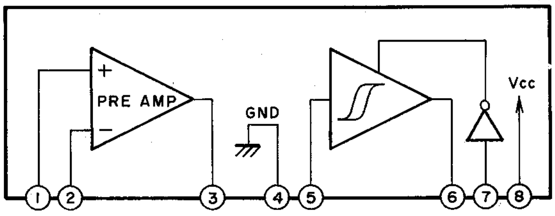
BA6229 (BI-DIRECTIONAL MOTOR DRIVER)


③ ⑨ ⑦ ⑧
⑤
⑥
CONTROL CIRCUIT
MOTOR DRIVE
②
⑩
①
④

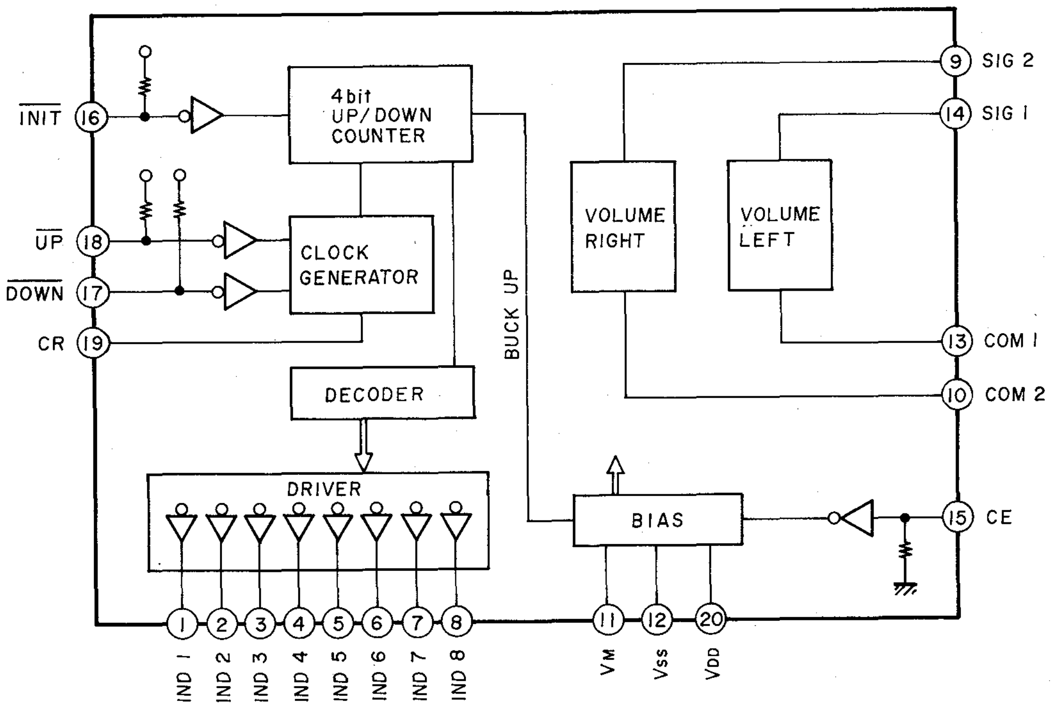
CONTROL MODE

MODE	INPUT		OUTPUT	
	5pin	6pin	2pin	10pin
STOP	L	L	OPEN	OPEN
NORMAL	H	L	H	L
REVERSE	L	H	L	H
BRAKE	H	H	L	L

BA6305 (CTL/FG AMPLIFIER)

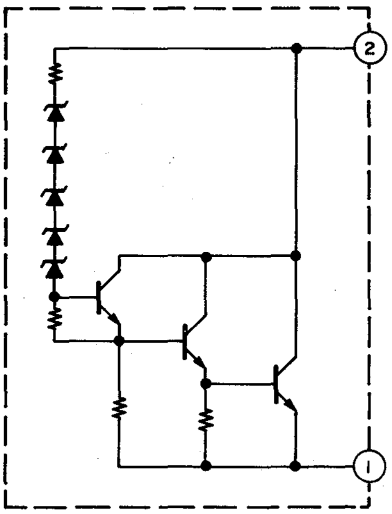

+
PRE AMP
−
GND
Vcc
① ② ③ ④ ⑤ ⑥ ⑦ ⑧

LC7530 (ELECTRONIC VOLUME)

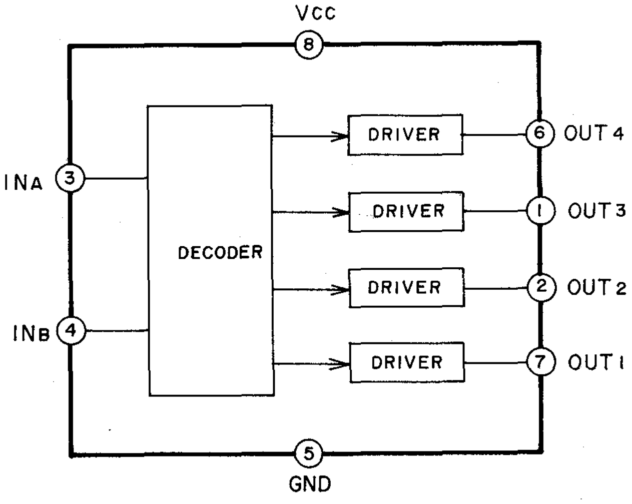


INIT 16
UP 18
DOWN 17
CR 19
4bit UP/DOWN COUNTER
CLOCK GENERATOR
DECODER
DRIVER
BUCK UP
VOLUME RIGHT
VOLUME LEFT
BIAS
9 SIG 2
14 SIG 1
13 COM 1
10 COM 2
15 CE
1 2 3 4 5 6 7 8
IND 1
IND 2
IND 3
IND 4
IND 5
IND 6
IND 7
IND 8
11 VM
12 Vss
20 VDD

μPC574J (REGULATOR)



M54572L (TUNER BAND SELECTOR)

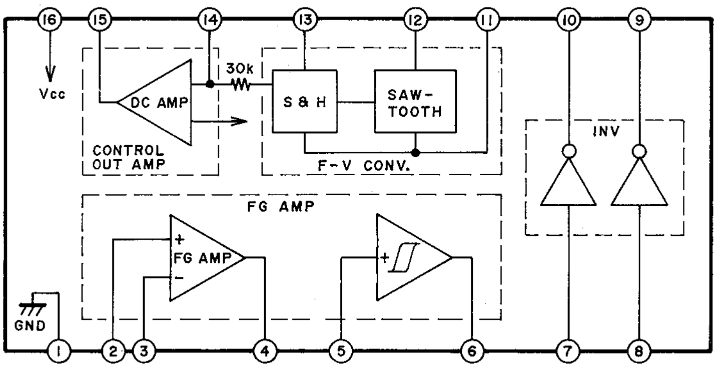


Vcc
8
INA 3
INB 4
DECODER
DRIVER
DRIVER
DRIVER
DRIVER
6 OUT 4
1 OUT 3
2 OUT 2
7 OUT 1
5
GND

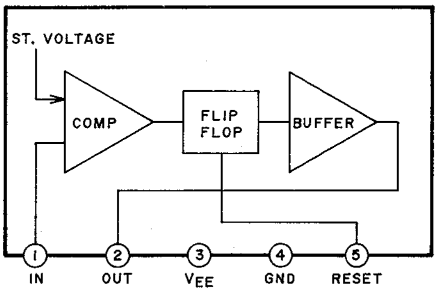
INPUT		OUTPUT				TUNER MODE
INA	INB	OUT1	OUT2	OUT3	OUT4	
0	0	1	Z	Z	Z	UHF
0	1	Z	Z	1	Z	VHF (L)
1	0	Z	1	Z	Z	VHF (SUPER)
1	1	Z	Z	1	0	VHF (M)

0: LOW
1: HIGH
Z: OPEN

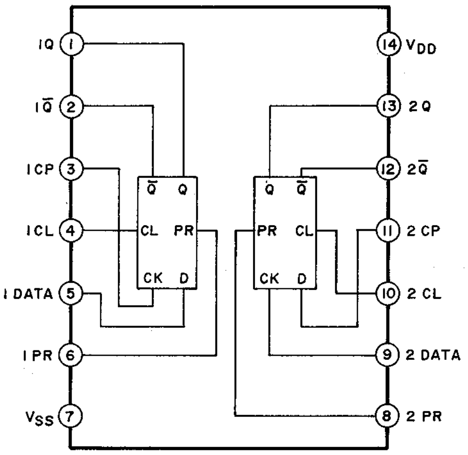
BA6302A (FG SPEED CONTROL SYSTEM)


16
15
14
13
12
11
10
9
Vcc
30k
DC AMP
S & H
SAW-TOOTH
CONTROL OUT AMP
F-V CONV.
INV
FG AMP
FG AMP
GND
1
2
3
4
5
6
7
8

BA634 (T-TYPE FLIP-FLOP)


ST. VOLTAGE
COMP
FLIP FLOP
BUFFER
1
2
3
4
5
IN
OUT
VEE
GND
RESET

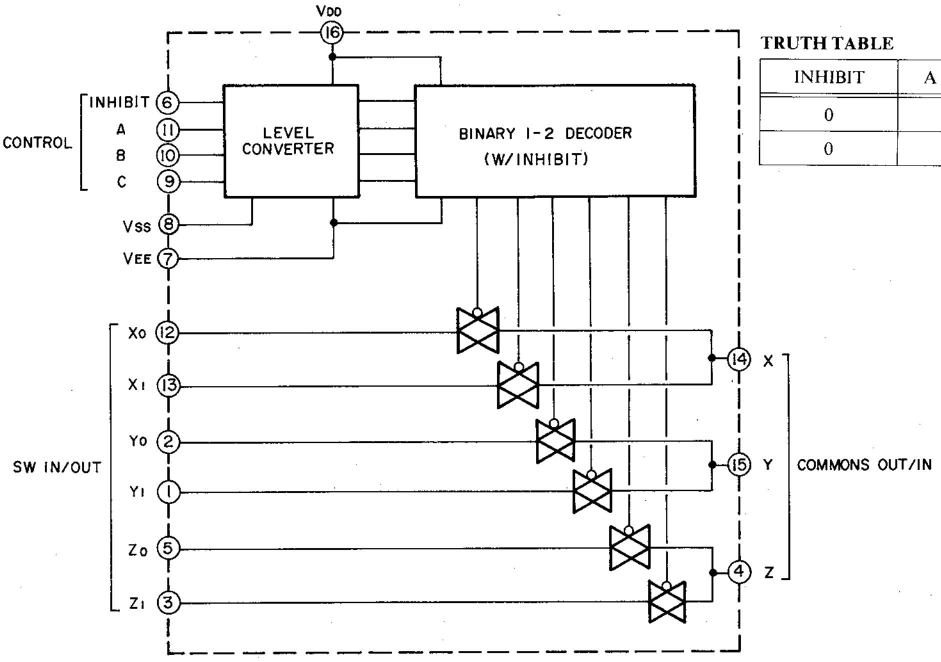
BU4013B/HD14013BP (DUAL D-TYPE FLIP-FLOP)


1Q
1Q̄
1CP
1CL
1 DATA
1 PR
Vss
VDD
2Q
2Q̄
2 CP
2 CL
2 DATA
2 PR
Q̄ Q
CL PR
CK D
Q Q̄
PR CL
CK D

INPUTS				OUTPUTS		
CLOCK↑	DATA	RESET	SET	Q	$\overline{Q}$	
_/‾	0	0	0	0	1	
_/‾	1	0	0	1	0	
‾_	×	0	0	Q	$\overline{Q}$	No Change
×	×	1	0	0	1	
×	×	0	1	1	0	
×	×	1	1	1	1	

× = Don't Care
↑ = Level Change

BU4053B/HD14053BP (ANALOG MULTIPLEXERS/DEMULTIPLEXERS)


VDD
16
CONTROL
INHIBIT 6
A 11
B 10
C 9
LEVEL CONVERTER
BINARY 1-2 DECODER (W/INHIBIT)
Vss 8
VEE 7
SW IN/OUT
X0 12
X1 13
Y0 2
Y1 1
Z0 5
Z1 3
14 X
15 Y
4 Z
COMMONS OUT/IN

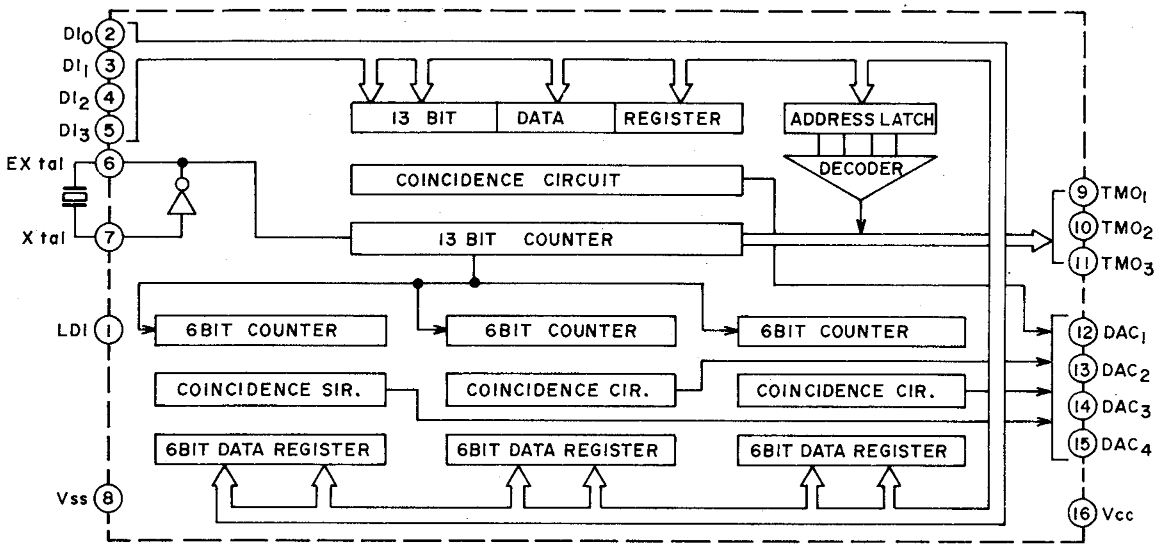
TRUTH TABLE

INHIBIT	A or B or C	"ON" CHANNEL
0	0	X_0 or Y_0 or Z_0
0	1	X_1 or Y_1 or Z_1

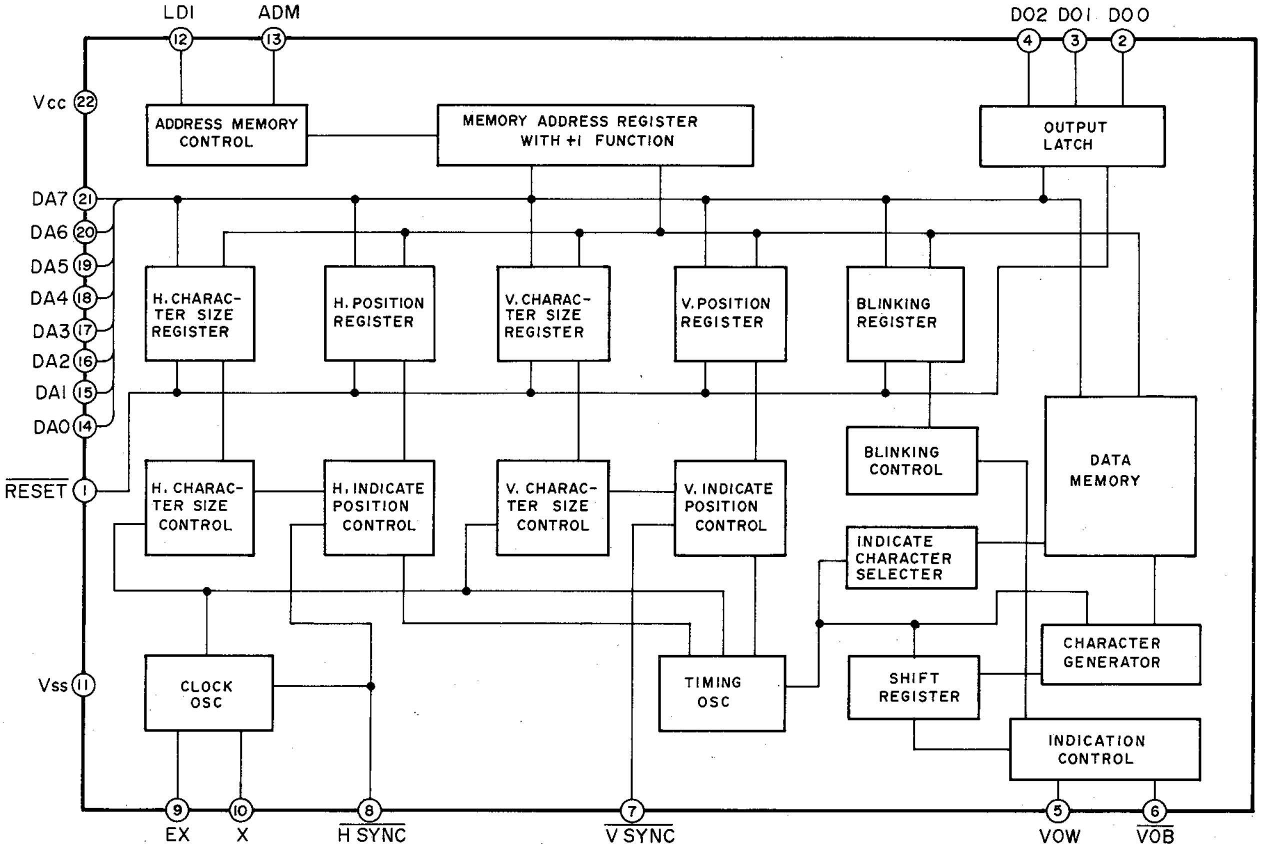
Terminal Description of M50760-368P (IC2 on HiFi AUDIO PCB)

<table>
<tr><th>Pin No.</th><th>Part Name</th><th>I/O</th><th>Active</th><th>Description</th></tr>
<tr><td>1</td><td>$\overline{\text{D3}}$</td><td>I</td><td>L</td><td>SC (Simalcast) ON/OFF Key input
“L” while the SC button’s pressed
(Only effective while Input CTL: Pin ⑫ is “H”.)</td></tr>
<tr><td>2</td><td>$\overline{\text{D4}}$</td><td>O</td><td>L</td><td>SC LED drive output, lit at “L”.</td></tr>
<tr><td>3</td><td>$\overline{\text{D5}}$</td><td>O</td><td>L</td><td>HiFi LED drive output, lit at “L”.</td></tr>
<tr><td>4</td><td>CN Vss</td><td>–</td><td>–</td><td>Connect to GND</td></tr>
<tr><td>5</td><td>Vss</td><td>–</td><td>–</td><td>Connect to GND</td></tr>
<tr><td>6
7</td><td>$\overline{\text{D6}}$
$\overline{\text{D7}}$</td><td>O
O</td><td>L
L</td><td>L
R LED drive output, lit at “L”
<table>
<tr><th>MODE / PORT</th><th>NORMAL</th><th>L</th><th>L+R</th><th>R</th></tr>
<tr><td>D6 (L)</td><td>H</td><td>L</td><td>L</td><td>H</td></tr>
<tr><td>D7 (R)</td><td>H</td><td>H</td><td>L</td><td>L</td></tr>
</table></td></tr>
<tr><td>8</td><td>D8</td><td>O</td><td>H</td><td>AUDIO MUTE output.</td></tr>
<tr><td>9</td><td>F0</td><td>I</td><td>H</td><td>FM MUTE input (FM Carrier → “L”, No FM Carrier → “H”)</td></tr>
<tr><td>10</td><td>F1</td><td>I</td><td>–</td><td>AL9V input</td></tr>
<tr><td>11</td><td>F2</td><td>O</td><td>–</td><td>AUDIO INT/$\overline{\text{EXT}}$ Selection output
(EXT → “L”: when INPUT CTL is “L” or SC is ON)
(INT → “H”: when INPUT CTL is “H”)</td></tr>
<tr><td>12</td><td>F3</td><td>I</td><td>–</td><td>INPUT CTL input (“H” → INT, “L” → EXT)</td></tr>
<tr><td>13</td><td>$\overline{\text{RESET}}$</td><td>I</td><td>L</td><td>Power-on Reset terminal</td></tr>
<tr><td>14
15</td><td>X OUT
X IN</td><td>–
–</td><td>–
–</td><td>} Internal OSC (300 kHz) drive resister connection terminal.</td></tr>
<tr><td>16</td><td>S</td><td>I</td><td>–</td><td>EE 9V input (EE/$\overline{\text{PB}}$ detection input)</td></tr>
<tr><td>17</td><td>$\overline{\text{D0}}$</td><td>I</td><td>L</td><td>A MUTE input (“L” while CUE, REV, STILL functions)</td></tr>
<tr><td>18</td><td>$\overline{\text{D1}}$</td><td>I</td><td>L</td><td>L/R/STEREO Key input (“L” while L/R/STEREO button is pressed)</td></tr>
<tr><td>19</td><td>D2</td><td>I</td><td>–</td><td>AUTO/NORMAL switch input (AUTO → “L”, NORMAL → “H”)</td></tr>
<tr><td>20</td><td>VDD</td><td>–</td><td>–</td><td>Power Supply terminal (IDL 5V)</td></tr>
</table>

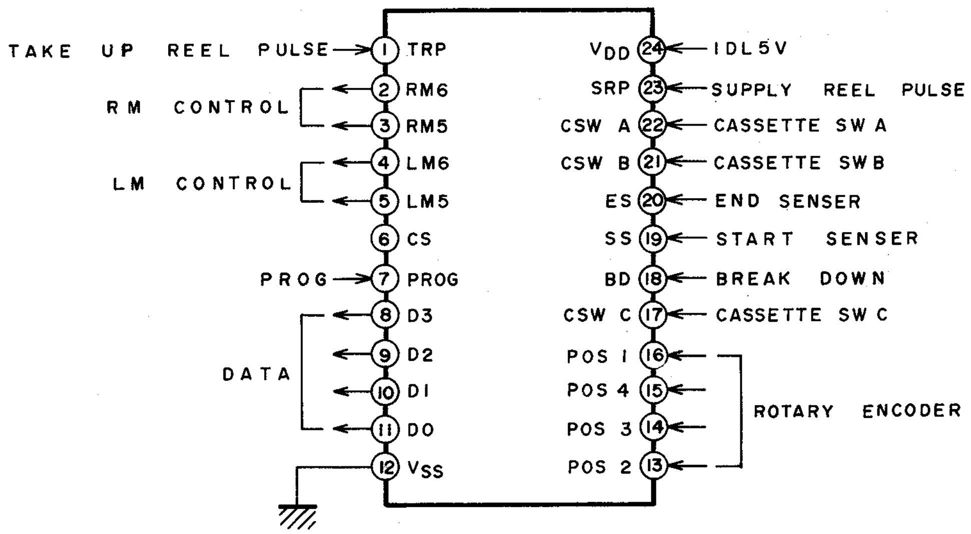
M88301A-P (D/A CONVERTER)


DI0 2
DI1 3
DI2 4
DI3 5
EX tal 6
X tal 7
LDI 1
Vss 8
13 BIT
DATA
REGISTER
ADDRESS LATCH
COINCIDENCE CIRCUIT
DECODER
13 BIT COUNTER
9 TMO1
10 TMO2
11 TMO3
6BIT COUNTER
6BIT COUNTER
6BIT COUNTER
COINCIDENCE SIR.
COINCIDENCE CIR.
COINCIDENCE CIR.
12 DAC1
13 DAC2
14 DAC3
15 DAC4
6BIT DATA REGISTER
6BIT DATA REGISTER
6BIT DATA REGISTER
16 Vcc

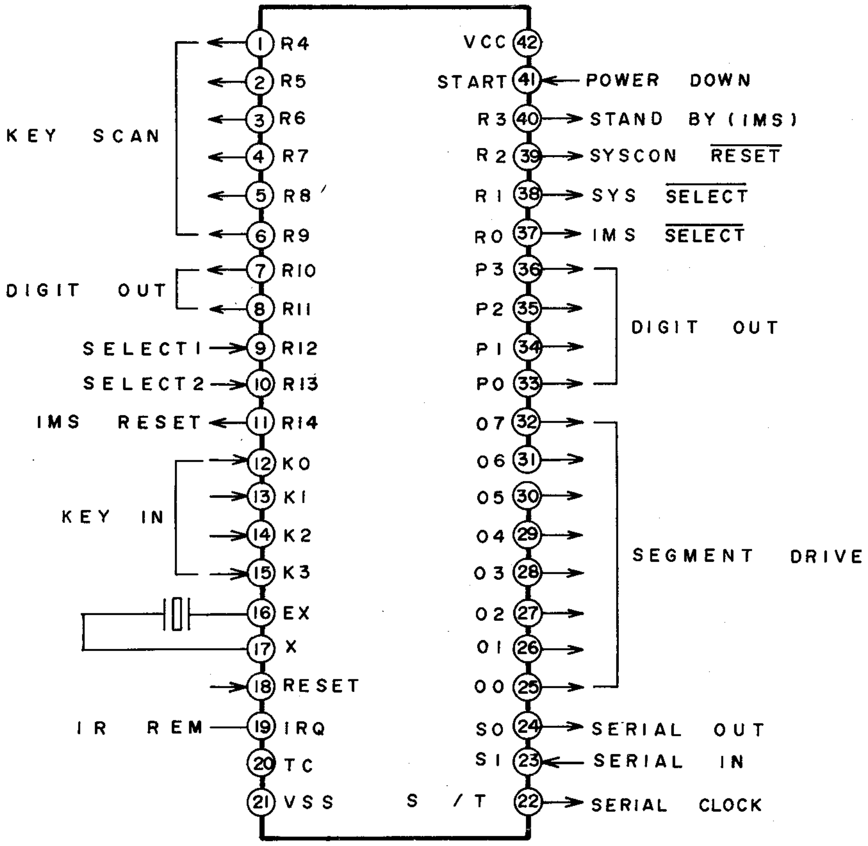
MB88303M (CHARACTER GENERATOR)


LDI 12
ADM 13
DO2 4
DO1 3
DO0 2
Vcc 22
ADDRESS MEMORY CONTROL
MEMORY ADDRESS REGISTER WITH +1 FUNCTION
OUTPUT LATCH
DA7 21
DA6 20
DA5 19
DA4 18
DA3 17
DA2 16
DA1 15
DA0 14
H. CHARACTER SIZE REGISTER
H. POSITION REGISTER
V. CHARACTER SIZE REGISTER
V. POSITION REGISTER
BLINKING REGISTER
DATA MEMORY
BLINKING CONTROL
RESET 1
H. CHARACTER SIZE CONTROL
H. INDICATE POSITION CONTROL
V. CHARACTER SIZE CONTROL
V. INDICATE POSITION CONTROL
INDICATE CHARACTER SELECTER
CHARACTER GENERATOR
Vss 11
CLOCK OSC
TIMING OSC
SHIFT REGISTER
INDICATION CONTROL
9 EX
10 X
8 H SYNC
7 V SYNC
5 VOW
6 VOB

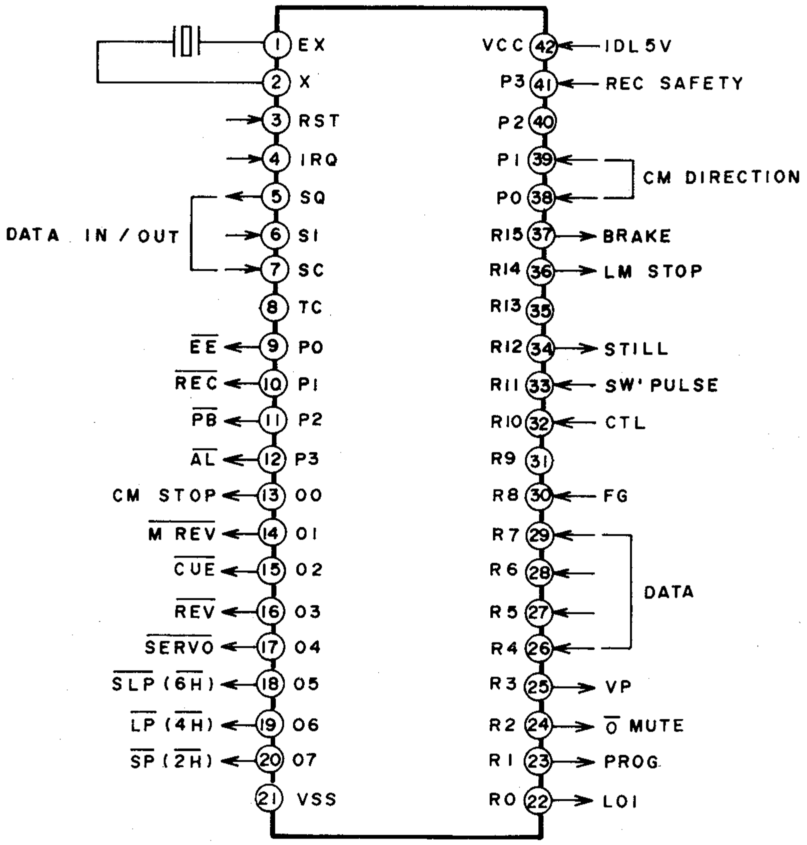
MB88305-P (MECHA DRIVE MI-COM)


TAKE UP REEL PULSE
RM CONTROL
LM CONTROL
PROG
DATA
1 TRP
2 RM6
3 RM5
4 LM6
5 LM5
6 CS
7 PROG
8 D3
9 D2
10 D1
11 D0
12 VSS
24 VDD
23 SRP
22 CSW A
21 CSW B
20 ES
19 SS
18 BD
17 CSW C
16 POS 1
15 POS 4
14 POS 3
13 POS 2
IDL5V
SUPPLY REEL PULSE
CASSETTE SW A
CASSETTE SW B
END SENSER
START SENSER
BREAK DOWN
CASSETTE SW C
ROTARY ENCODER

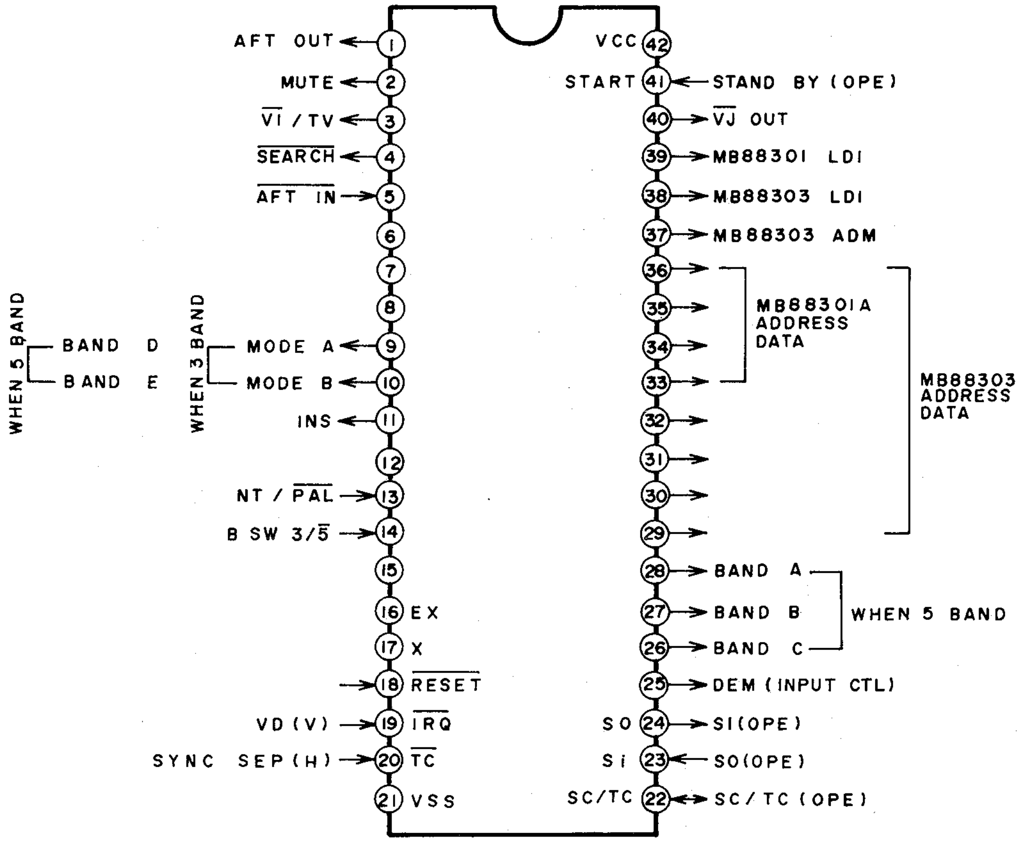
MB88501-352M (OPERATION MI-COM)

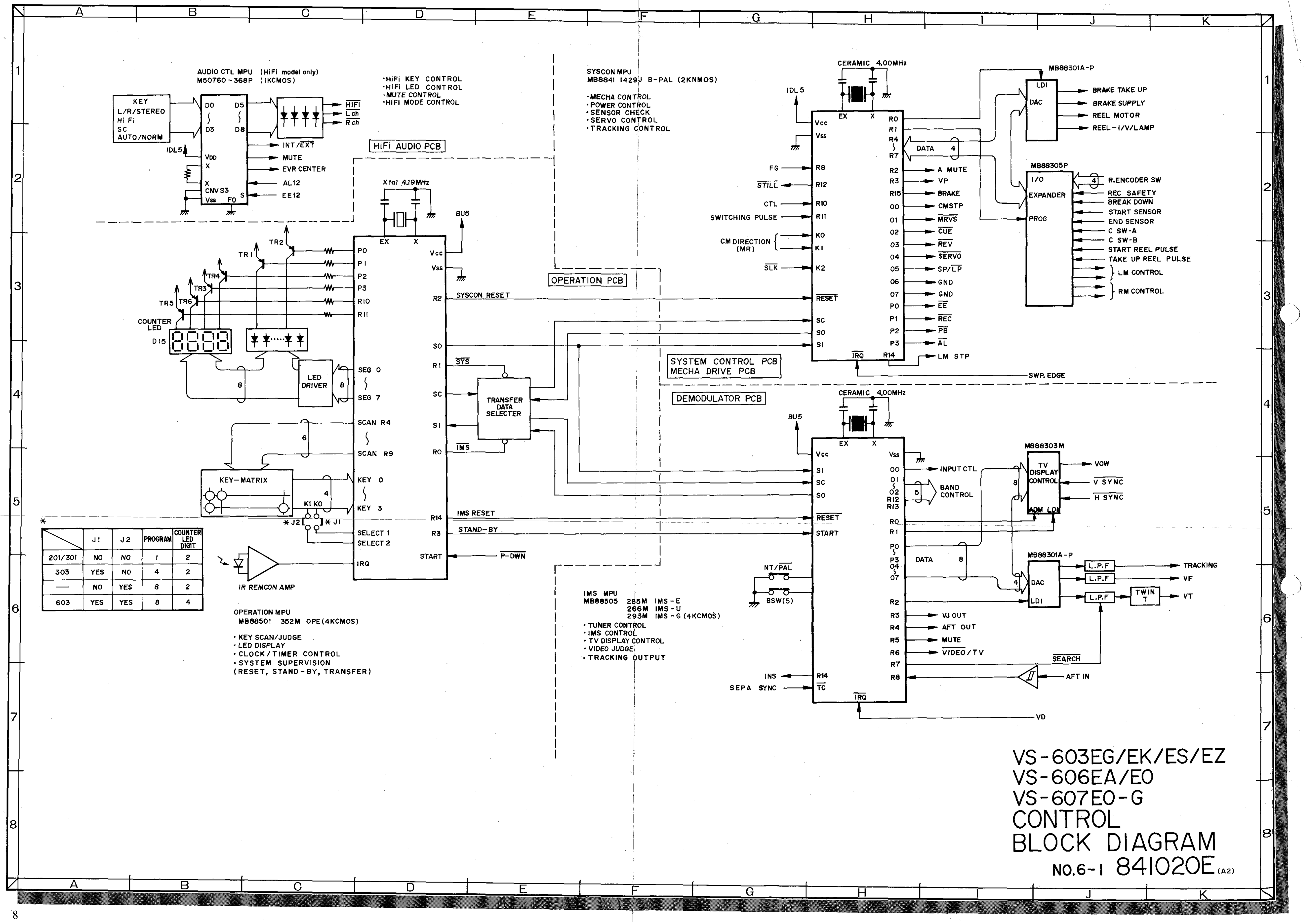

KEY SCAN
DIGIT OUT
SELECT1
SELECT2
IMS RESET
KEY IN
IR REM
1 R4
2 R5
3 R6
4 R7
5 R8
6 R9
7 R10
8 R11
9 R12
10 R13
11 R14
12 K0
13 K1
14 K2
15 K3
16 EX
17 X
18 RESET
19 IRQ
20 TC
21 VSS
42 VCC
41 START
40 R3
39 R2
38 R1
37 R0
36 P3
35 P2
34 P1
33 P0
32 O7
31 O6
30 O5
29 O4
28 O3
27 O2
26 O1
25 O0
24 SO
23 SI
22 S/T
POWER DOWN
STAND BY (IMS)
SYSCON RESET
SYS SELECT
IMS SELECT
DIGIT OUT
SEGMENT DRIVE
SERIAL OUT
SERIAL IN
SERIAL CLOCK

MB8841-1429J (SYSTEM CONTROL MI-COM)


DATA IN / OUT
EE
REC
PB
AL
CM STOP
M REV
CUE
REV
SERVO
SLP (6H)
LP (4H)
SP (2H)
1 EX
2 X
3 RST
4 IRQ
5 SO
6 SI
7 SC
8 TC
9 P0
10 P1
11 P2
12 P3
13 O0
14 O1
15 O2
16 O3
17 O4
18 O5
19 O6
20 O7
21 VSS
42 VCC
41 P3
40 P2
39 P1
38 P0
37 R15
36 R14
35 R13
34 R12
33 R11
32 R10
31 R9
30 R8
29 R7
28 R6
27 R5
26 R4
25 R3
24 R2
23 R1
22 R0
IDL5V
REC SAFETY
CM DIRECTION
BRAKE
LM STOP
STILL
SW' PULSE
CTL
FG
DATA
VP
O MUTE
PROG
LOI

MB88505 (IMS MI-COM)

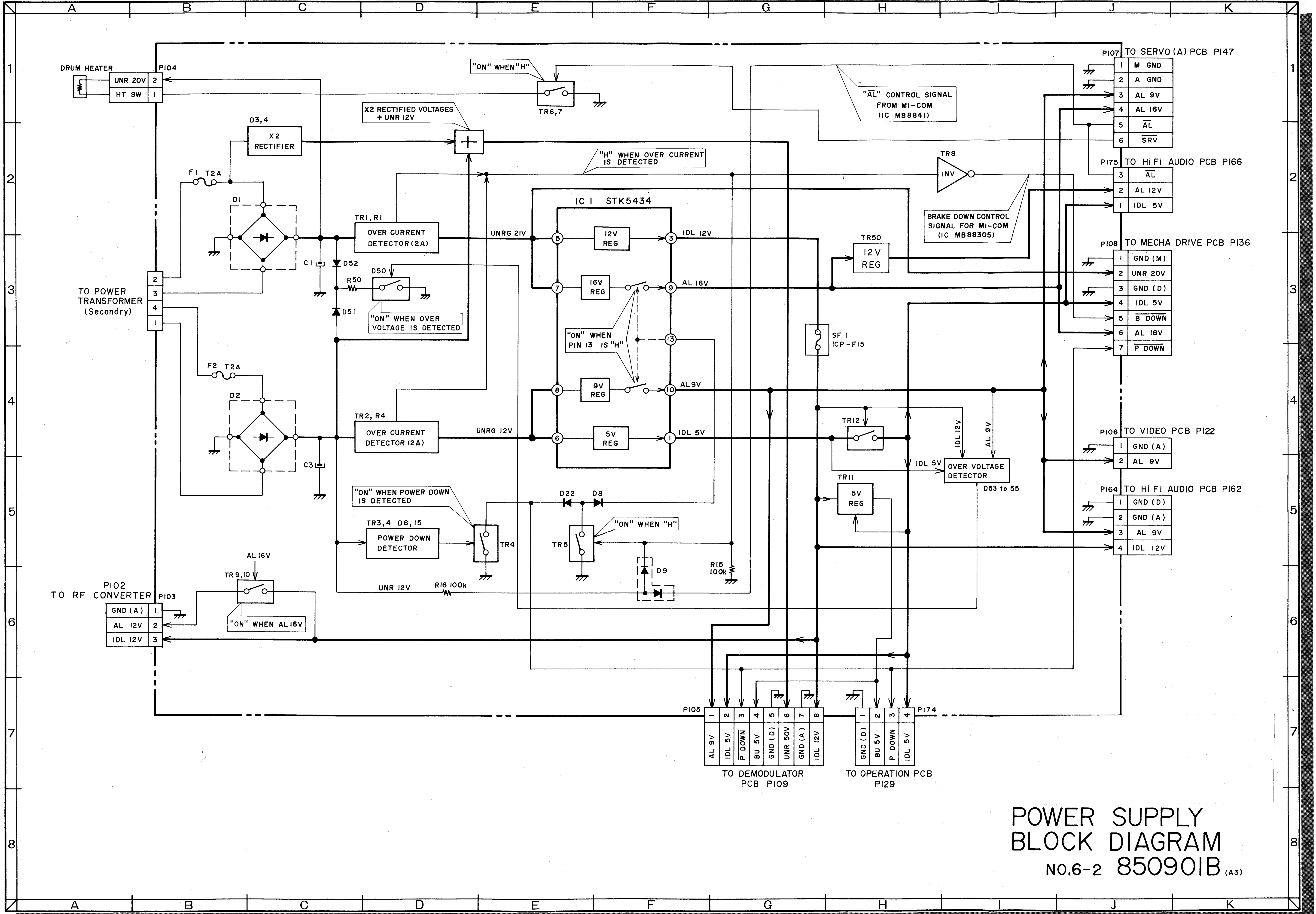

AFT OUT
MUTE
VI / TV
SEARCH
AFT IN
WHEN 5 BAND
BAND D
BAND E
WHEN 3 BAND
MODE A
MODE B
INS
NT / PAL
B SW 3/5
VD (V)
SYNC SEP (H)
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16 EX
17 X
18 RESET
19 IRQ
20 TC
21 VSS
42 VCC
41 START
40
39
38
37
36
35
34
33
32
31
30
29
28
27
26
25
24 SO
23 SI
22 SC/TC
STAND BY (OPE)
VJ OUT
MB88301 LDI
MB88303 LDI
MB88303 ADM
MB88301A ADDRESS DATA
MB88303 ADDRESS DATA
BAND A
BAND B
BAND C
WHEN 5 BAND
DEM (INPUT CTL)
SI (OPE)
SO (OPE)
SC / TC (OPE)


A
B
C
D
E
F
G
H
I
J
K
1
2
3
4
5
6
7
8
AUDIO CTL MPU (HiFi model only)
M50760-368P (IKCMOS)
KEY
L/R/STEREO
Hi Fi
SC
AUTO/NORM
D0
D3
D5
D8
IDL5
VDD
X
X
CNVS3
Vss
F0
S
HIFI
Lch
Rch
INT/EXT
MUTE
EVR CENTER
AL12
EE12
·HiFi KEY CONTROL
·HiFi LED CONTROL
·MUTE CONTROL
·HiFi MODE CONTROL
HiFi AUDIO PCB
Xtal 4.19MHz
BU5
EX
X
TR1
TR2
TR3
TR4
TR5
TR6
COUNTER LED
D15
P0
P1
P2
P3
R10
R11
Vcc
Vss
R2
SYSCON RESET
S0
R1
SYS
SC
SI
R0
IMS
TRANSFER DATA SELECTER
LED DRIVER
8
8
SEG 0
SEG 7
SCAN R4
SCAN R9
6
KEY-MATRIX
KEY 0
KEY 3
4
K1 K0
*J2
*J1
SELECT 1
SELECT 2
IRQ
R14
IMS RESET
R3
STAND-BY
START
P-DWN
IR REMCON AMP
OPERATION MPU
MB88501 352M OPE(4KCMOS)
· KEY SCAN/JUDGE
· LED DISPLAY
· CLOCK/TIMER CONTROL
· SYSTEM SUPERVISION
(RESET, STAND-BY, TRANSFER)
OPERATION PCB
SYSCON MPU
MB8841 1429J B-PAL (2KNMOS)
·MECHA CONTROL
·POWER CONTROL
·SENSOR CHECK
·SERVO CONTROL
·TRACKING CONTROL
CERAMIC 4.00MHz
IDL5
Vcc
Vss
FG
R8
STILL
R12
CTL
R10
SWITCHING PULSE
R11
CM DIRECTION (MR)
K0
K1
SLK
K2
RESET
SC
SO
SI
IRQ
R14
R0
R1
R4
R7
DATA
4
R2
A MUTE
R3
VP
R15
BRAKE
00
CMSTP
01
MRVS
02
CUE
03
REV
04
SERVO
05
SP/LP
06
GND
07
GND
P0
EE
P1
REC
P2
PB
P3
AL
LM STP
SWP. EDGE
MB88301A-P
LDI
DAC
BRAKE TAKE UP
BRAKE SUPPLY
REEL MOTOR
REEL-I/V/LAMP
MB88305P
I/O
EXPANDER
PROG
4
R.ENCODER SW
REC SAFETY
BREAK DOWN
START SENSOR
END SENSOR
C SW-A
C SW-B
START REEL PULSE
TAKE UP REEL PULSE
LM CONTROL
RM CONTROL
SYSTEM CONTROL PCB
MECHA DRIVE PCB
DEMODULATOR PCB
CERAMIC 4.00MHz
BU5
EX
X
Vcc
SI
SC
SO
RESET
START
Vss
00
INPUT CTL
01
02
R12
R13
5
BAND CONTROL
R0
R1
P0
P3
04
07
DATA
8
NT/PAL
BSW(5)
R2
R3
VJ OUT
R4
AFT OUT
R5
MUTE
R6
VIDEO/TV
R7
SEARCH
R8
AFT IN
R14
INS
TC
SEPA SYNC
IRQ
VD
MB88303M
TV DISPLAY CONTROL
ADM LDI
8
VOW
V SYNC
H SYNC
MB88301A-P
DAC
LDI
4
L.P.F
L.P.F
L.P.F
TWIN T
TRACKING
VF
VT
IMS MPU
MB88505 285M IMS-E
266M IMS-U
293M IMS-G (4KCMOS)
• TUNER CONTROL
• IMS CONTROL
• TV DISPLAY CONTROL
• VIDEO JUDGE
• TRACKING OUTPUT

*

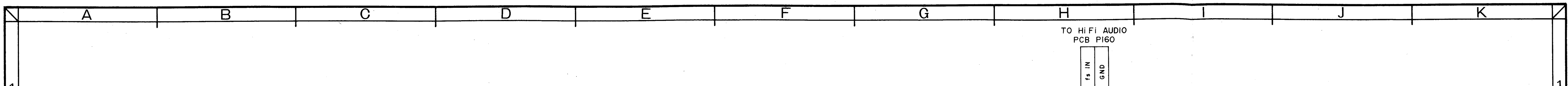
	J1	J2	PROGRAM	COUNTER LED DIGIT
201/301	NO	NO	1	2
303	YES	NO	4	2
—	NO	YES	8	2
603	YES	YES	8	4

VS-603EG/EK/ES/EZ
VS-606EA/EO
VS-607EO-G
CONTROL
BLOCK DIAGRAM
NO.6-1 841020E (A2)

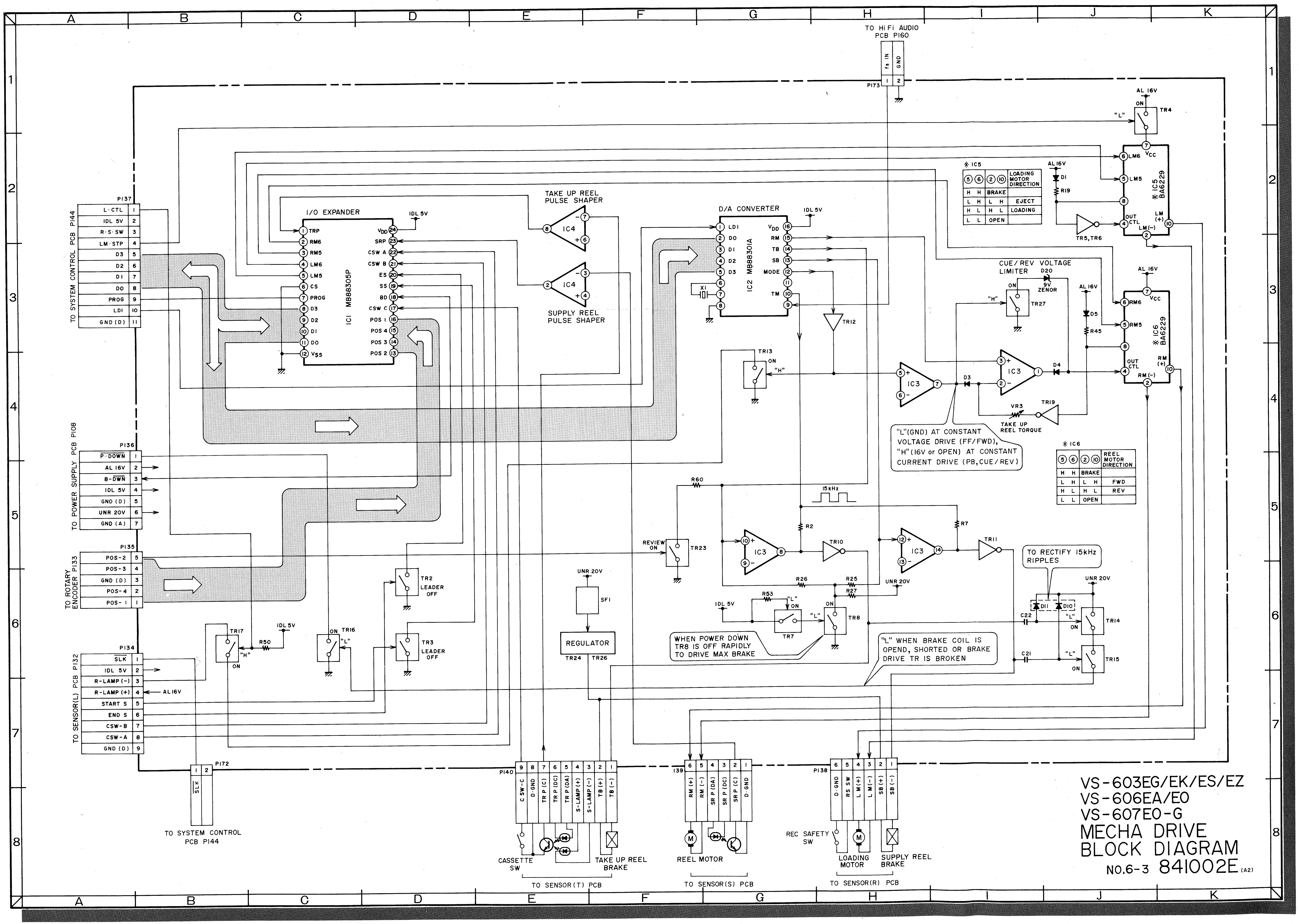

DRUM HEATER
UNR 20V
HT SW
P104
"ON" WHEN "H"
TR6,7
X2 RECTIFIED VOLTAGES + UNR 12V
D3,4
X2 RECTIFIER
F1 T2A
D1
"H" WHEN OVER CURRENT IS DETECTED
TR1,R1
OVER CURRENT DETECTOR (2A)
UNRG 21V
IC 1 STK5434
12V REG
IDL 12V
16V REG
AL 16V
"ON" WHEN PIN 13 IS "H"
9V REG
AL9V
5V REG
IDL 5V
C1
D52
R50
D50
"ON" WHEN OVER VOLTAGE IS DETECTED
D51
TO POWER TRANSFORMER (Secondry)
F2 T2A
D2
TR2, R4
OVER CURRENT DETECTOR (2A)
UNRG 12V
C3
"ON" WHEN POWER DOWN IS DETECTED
TR3,4 D6,15
POWER DOWN DETECTOR
TR4
D22
D8
TR5
"ON" WHEN "H"
D9
R15 100k
UNR 12V
R16 100k
AL 16V
TR9,10
"ON" WHEN AL 16V
P102
TO RF CONVERTER
P103
GND (A)
AL 12V
IDL 12V
"AL" CONTROL SIGNAL FROM MI-COM (IC MB8841)
TR8
INV
BRAKE DOWN CONTROL SIGNAL FOR MI-COM (IC MB88305)
TR50
12V REG
SF 1 ICP-F15
TR12
IDL 12V
AL 9V
IDL 5V
OVER VOLTAGE DETECTOR
D53 to 55
TR11
5V REG
P107 TO SERVO (A) PCB P147
1 M GND
2 A GND
3 AL 9V
4 AL 16V
5 AL
6 SRV
P175 TO HiFi AUDIO PCB P166
3 AL
2 AL 12V
1 IDL 5V
P108 TO MECHA DRIVE PCB P136
1 GND (M)
2 UNR 20V
3 GND (D)
4 IDL 5V
5 B DOWN
6 AL 16V
7 P DOWN
P106 TO VIDEO PCB P122
1 GND (A)
2 AL 9V
P164 TO HiFi AUDIO PCB P162
1 GND (D)
2 GND (A)
3 AL 9V
4 IDL 12V
P105
1 AL 9V
2 IDL 5V
3 P DOWN
4 BU 5V
5 GND (D)
6 UNR 50V
7 GND (A)
8 IDL 12V
TO DEMODULATOR PCB P109
P174
1 GND (D)
2 BU 5V
3 P DOWN
4 IDL 5V
TO OPERATION PCB P129

POWER SUPPLY BLOCK DIAGRAM

NO.6-2 850901B (A3)


TO HiFi AUDIO PCB P160
fs IN
GND

No.6-2 850901B (A3)



TO HiFi AUDIO PCB P160
fs IN
GND
P173
P137
L·CTL
IDL 5V
R·S·SW
LM·STP
D3
D2
D1
D0
PROG
LDI
GND (D)
TO SYSTEM CONTROL PCB P144
I/O EXPANDER
IDL 5V
TRP
RM6
RM5
LM6
LM5
CS
PROG
D3
D2
D1
D0
VSS
VDD
SRP
CSW A
CSW B
ES
SS
BD
CSW C
POS 1
POS 4
POS 3
POS 2
IC1 MB88305P
TAKE UP REEL PULSE SHAPER
IC4
SUPPLY REEL PULSE SHAPER
D/A CONVERTER
IDL 5V
LDI
D0
D1
D2
D3
X1
VDD
RM
TB
SB
MODE
TM
IC2 MB88301A
TR12
TR13
ON
"H"
IC3
D3
D4
IC3
VR3
TAKE UP REEL TORQUE
TR19
"L"(GND) AT CONSTANT VOLTAGE DRIVE (FF/FWD), "H"(16V or OPEN) AT CONSTANT CURRENT DRIVE (PB,CUE/REV)
CUE/REV VOLTAGE LIMITER
D20
9V ZENOR
TR27
AL 16V
D1
R19
D5
R45
TR5,TR6
AL 16V
TR4
"L"
VCC
LM6
LM5
OUT CTL
LM (+)
LM(−)
※IC5 BA6229
RM6
RM5
RM (+)
RM (−)
※IC6 BA6229
P136
P·DOWN
AL 16V
B·DWN
IDL 5V
GND (D)
UNR 20V
GND (A)
TO POWER SUPPLY PCB P108
P135
POS-2
POS-3
GND (D)
POS-4
POS-1
TO ROTARY ENCODER P133
P134
SLK
IDL 5V
R-LAMP (−)
R-LAMP (+)
AL16V
START S
END S
CSW-B
CSW-A
GND (D)
TO SENSOR(L) PCB P132
TR17
R50
IDL 5V
"H"
ON
TR16
TR2 LEADER OFF
TR3 LEADER OFF
UNR 20V
SF1
REGULATOR
TR24
TR26
R60
REVIEW ON
TR23
15kHz
R2
IC3
TR10
R7
IC3
TR11
R26
R25
R27
UNR 20V
IDL 5V
R53
TR7
TR8
WHEN POWER DOWN TR8 IS OFF RAPIDLY TO DRIVE MAX BRAKE
"L" WHEN BRAKE COIL IS OPEND, SHORTED OR BRAKE DRIVE TR IS BROKEN
TO RECTIFY 15kHz RIPPLES
D11
D10
C22
C21
TR14
TR15
UNR 20V
P172
SLK
TO SYSTEM CONTROL PCB P144
P140
C SW-C
D·GND
TR P (C)
TR P (DC)
TR P (DA)
S-LAMP (+)
S-LAMP (−)
TB (+)
TB (−)
CASSETTE SW
TAKE UP REEL BRAKE
TO SENSOR(T) PCB
139
RM (+)
RM (−)
SR P (DA)
SR P (DC)
SR P (C)
D·GND
REEL MOTOR
TO SENSOR(S) PCB
P138
D·GND
RS SW
L M (+)
L M (−)
SB (+)
SB (−)
REC SAFETY SW
LOADING MOTOR
SUPPLY REEL BRAKE
TO SENSOR(R) PCB
A
B
C
D
E
F
G
H
I
J
K
1
2
3
4
5
6
7
8

※IC5

⑤ ⑥	② ⑩	LOADING MOTOR DIRECTION
H H	BRAKE	
L H	L H	EJECT
H L	H L	LOADING
L L	OPEN	

※IC6

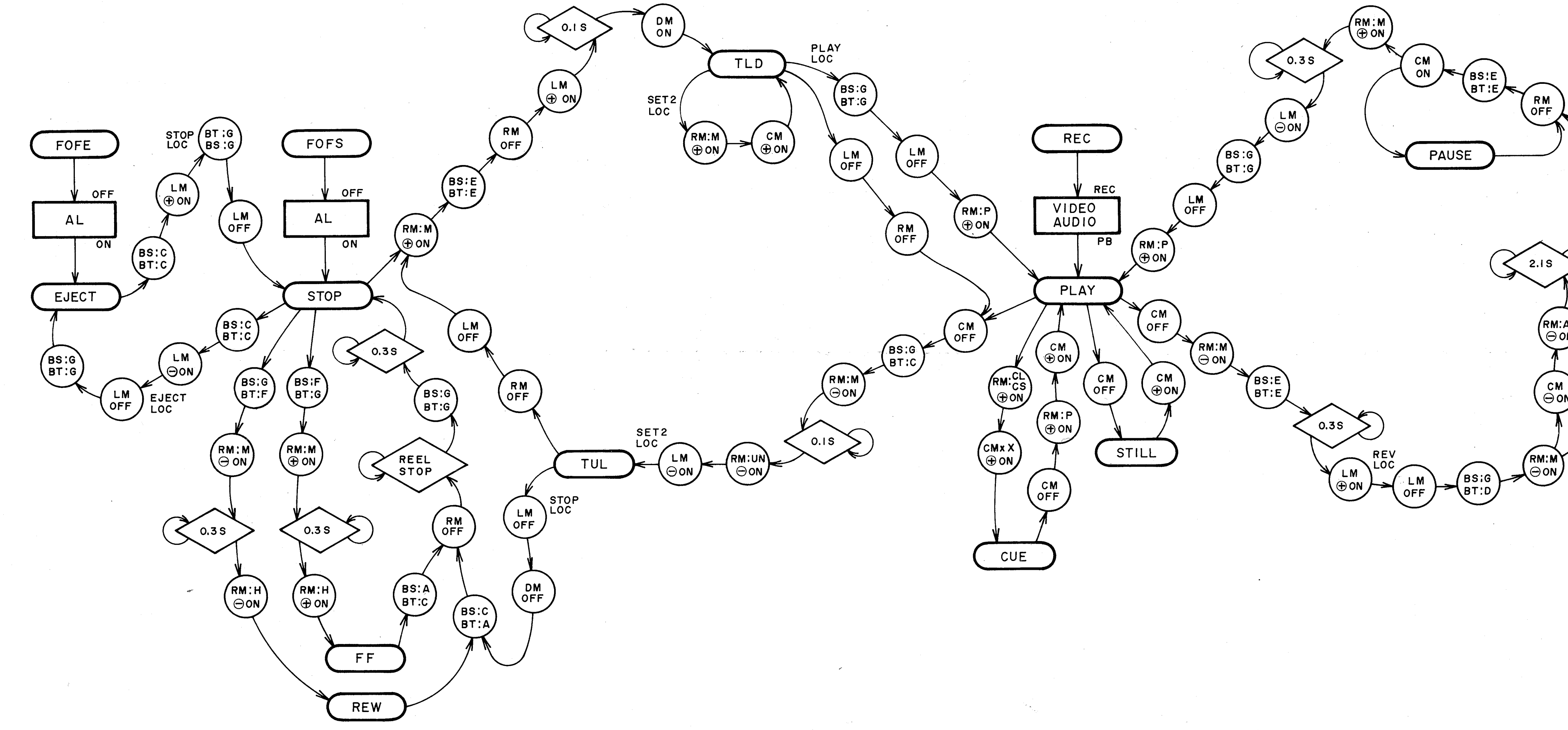
⑤ ⑥	② ⑩	REEL MOTOR DIRECTION
H H	BRAKE	
L H	L H	FWD
H L	H L	REV
L L	OPEN	

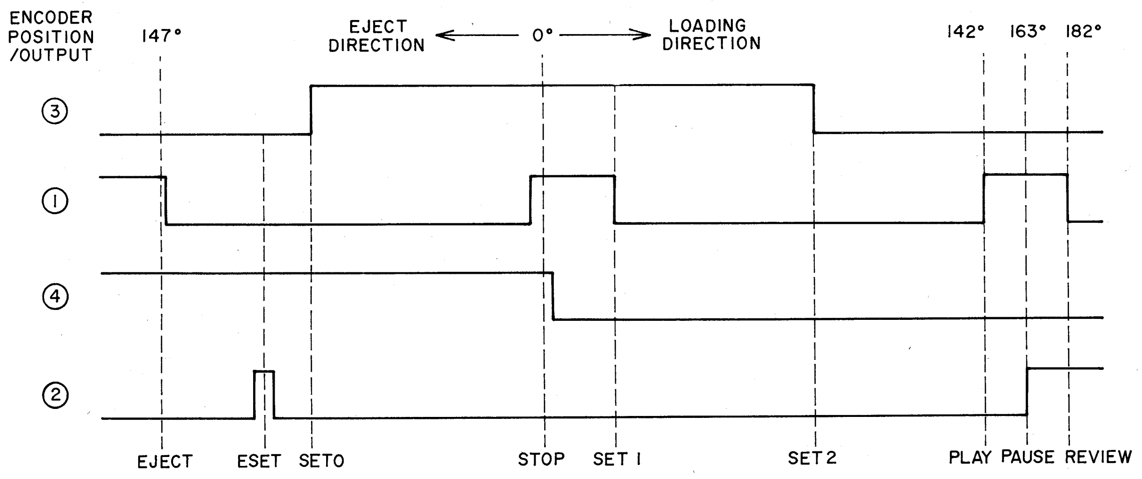
VS-603EG/EK/ES/EZ
VS-606EA/EO
VS-607EO-G

MECHA DRIVE BLOCK DIAGRAM

No.6-3 841002E (A2)

MECHA MODE AND ACTIONFLOW


FOFE
AL
OFF
ON
EJECT
STOP LOC
BT:G BS:G
LM ⊕ON
BS:C BT:C
BS:G BT:G
LM OFF
EJECT LOC
LM ⊖ON
FOFS
AL
OFF
ON
STOP
LM OFF
BS:C BT:C
BS:G BT:F
BS:F BT:G
RM:M ⊖ON
RM:M ⊕ON
0.3S
RM:H ⊖ON
RM:H ⊕ON
FF
REW
BS:A BT:C
BS:C BT:A
RM OFF
REEL STOP
BS:G BT:G
0.3S
LM OFF
RM OFF
DM OFF
LM OFF
STOP LOC
TUL
SET2 LOC
LM ⊖ON
RM:UN ⊖ON
0.1S
RM:M ⊖ON
BS:G BT:C
CM OFF
RM:M ⊕ON
BS:E BT:E
RM OFF
LM ⊕ON
0.1S
DM ON
TLD
PLAY LOC
SET2 LOC
RM:M ⊕ON
CM ⊕ON
BS:G BT:G
LM OFF
LM OFF
RM OFF
RM:P ⊕ON
REC
REC
VIDEO AUDIO
PB
PLAY
RM:CL CS ⊕ON
CM ⊕ON
RM:P ⊕ON
CM OFF
CM ⊕ON
CM OFF
CMxX ⊕ON
CM OFF
CUE
STILL
RM:M ⊖ON
BS:E BT:E
0.3S
REV LOC
LM ⊕ON
LM OFF
BS:G BT:D
RM:M ⊖ON
CM ⊖ON
RM:A ⊖ON
2.1S
RM:P ⊕ON
LM OFF
BS:G BT:G
LM ⊖ON
0.3S
RM:M ⊕ON
CM ON
BS:E BT:E
RM OFF
PAUSE



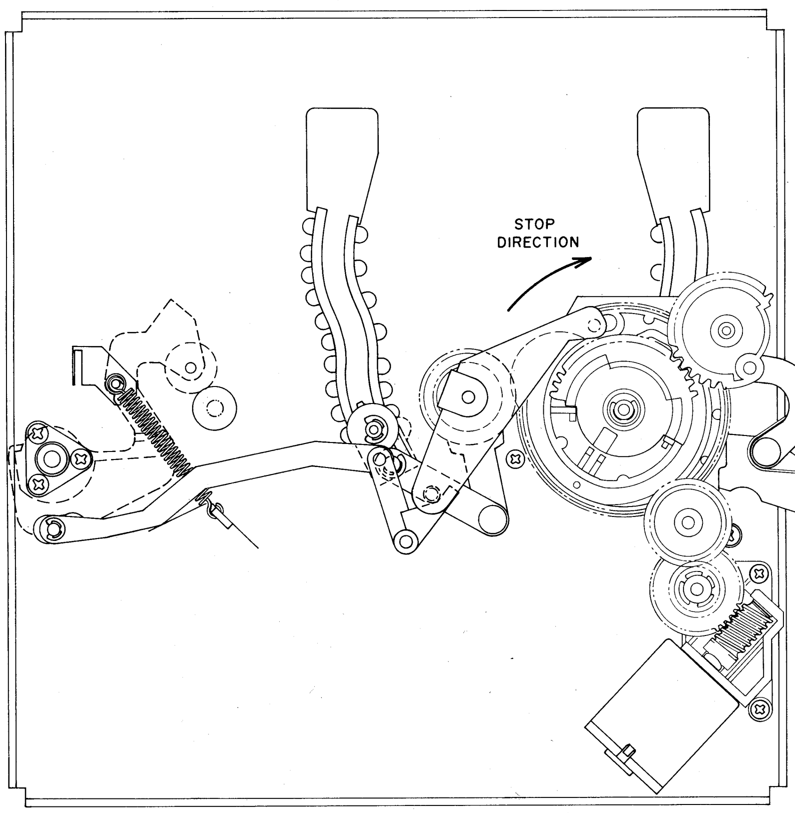
ABBREVIATIONS

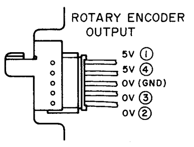
Reel Motor Torque Voltage Drive Mode
M : Idler Position Change
H : FF REW

Current Drive Mode
CL : LP CUE REV
AE : AEC
P : PLAY REC
UN : Unloading
CS : SP LP CUE REV

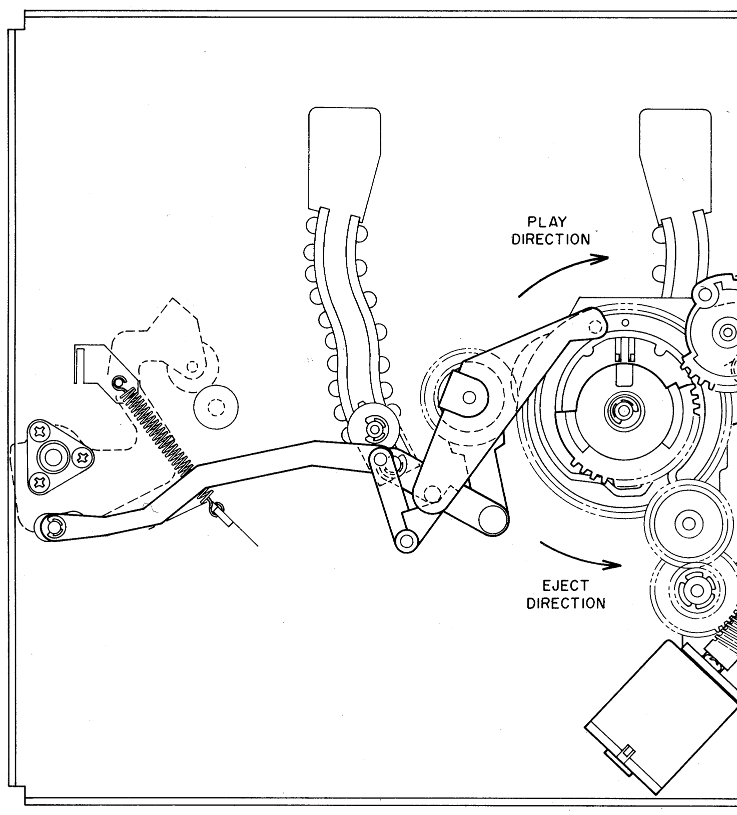
Magnetic Brake Torque
A : From FF REW To STOP(Supply Side)
Increase C : From FF REW To STOP(Winding Side)
D : REV Back Tension
E : Unloading Brake
Decrease F : FF REW Back Tension(Supply Side)
G : FF RWD(Take Up Side)

DM : Drum Mot
CM : Capstan
BT : Take Up
BS : Supply
RM : Reel Mot
LM : Loading
FOFE : Ejecte
(Witho
FOFS : Stoppe
(With
AL : Always
LOC : Locati
TLD : Tape L
TUL : Tape U
LM ⊕ ON : Loa
(Lo
RM ⊕ ON : Ree
(PL
CMxX ⊕ ON : C

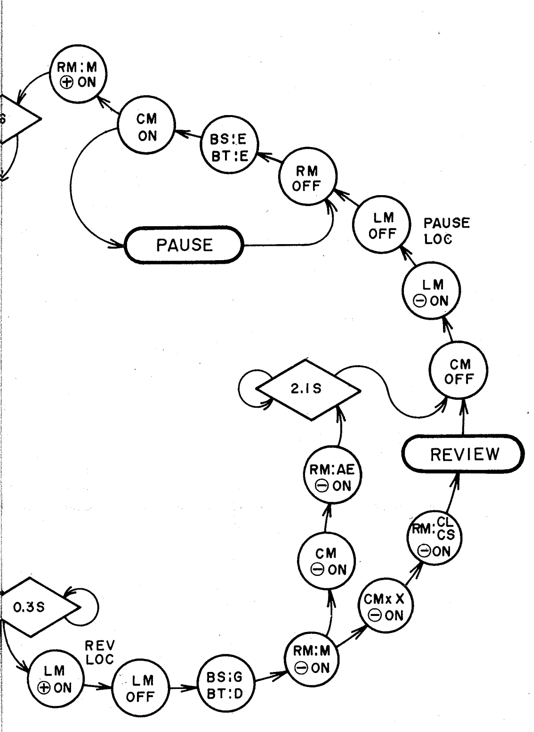

STOP DIRECTION


ROTARY ENCODER OUTPUT
5V ①
5V ④
0V (GND)
0V ③
0V ②

EJECTED (TAPE OUT)


PLAY DIRECTION
EJECT DIRECTION

STOP (TAPE IN)

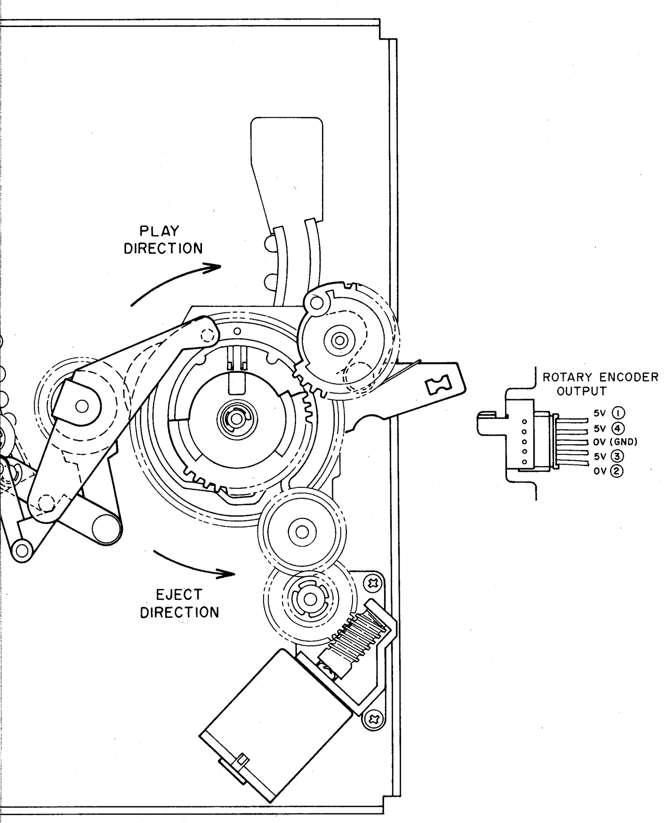

RM:M ⊕ON
CM ON
BS:E BT:E
RM OFF
LM OFF
PAUSE LOC
PAUSE
LM ⊖ON
CM OFF
2.1S
REVIEW
RM:AE ⊖ON
RM:CL CS ⊖ON
CM ⊖ON
CMxX ⊖ON
0.3S
REV LOC
LM ⊕ON
LM OFF
BS:G BT:D
RM:M ⊖ON

ive Mode

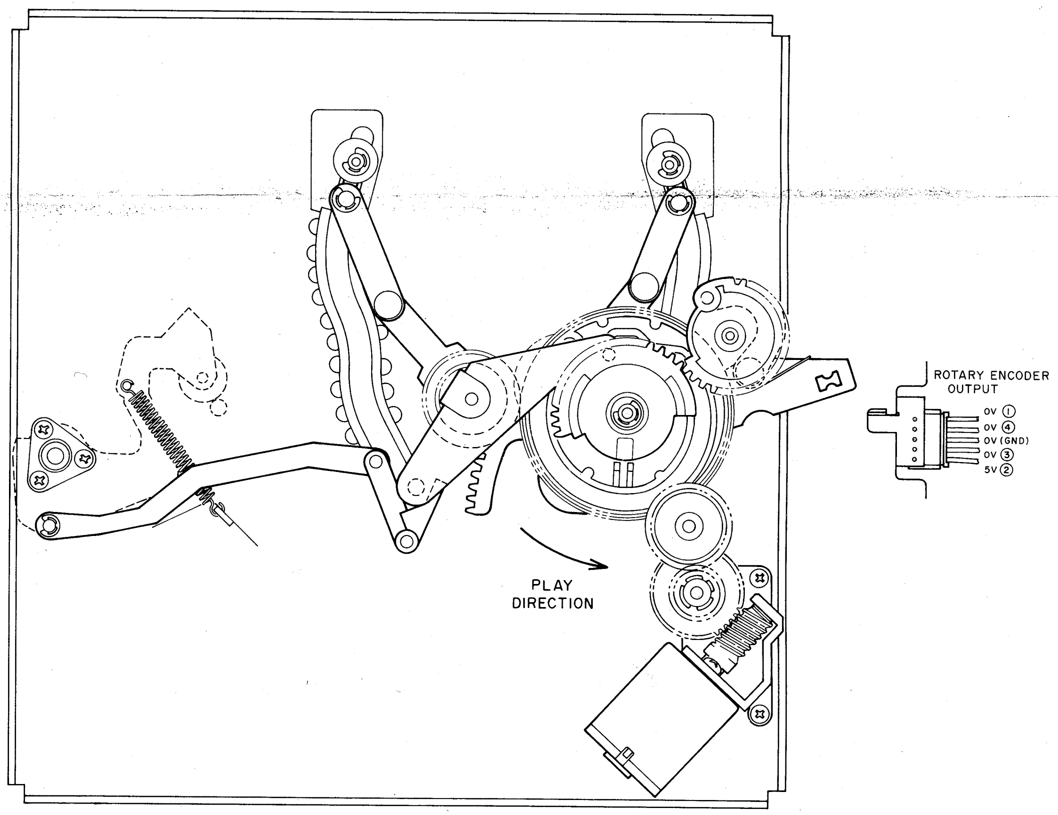
pply Side)
ading Side)

pply Side)

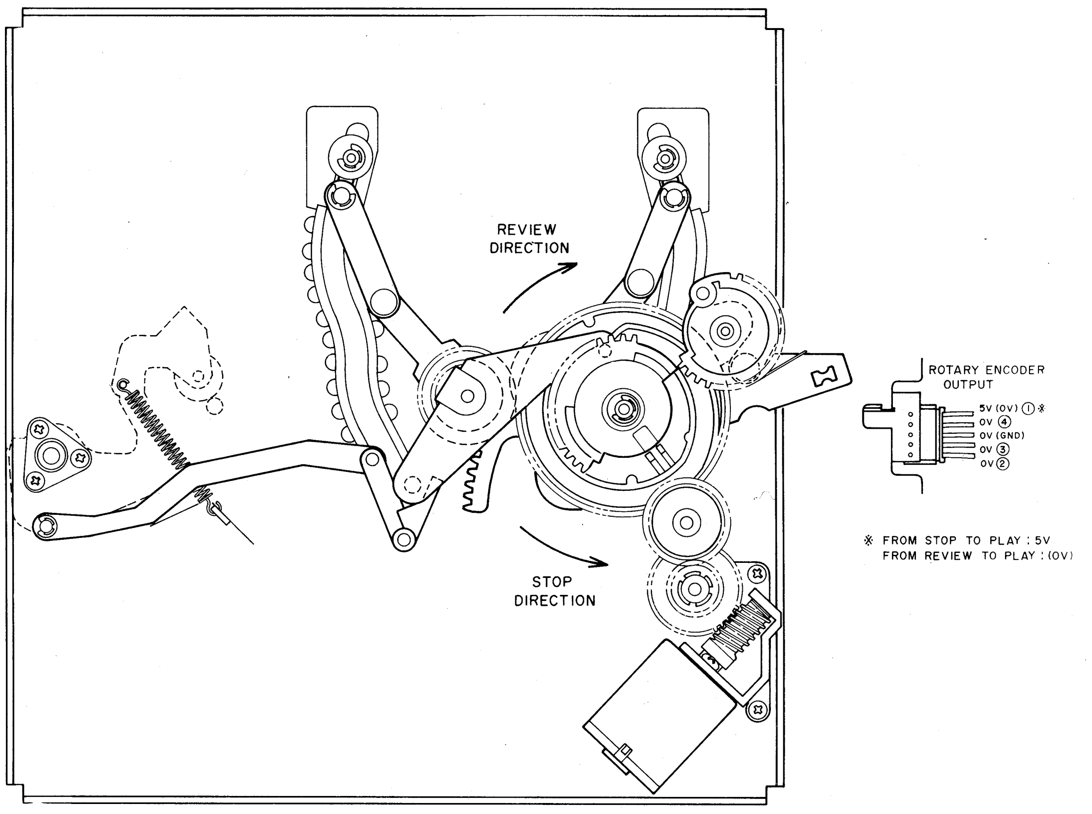
DM : Drum Motor
CM : Capstan Motor
BT : Take Up Magnetic Brake
BS : Supply Magnetic Brake
RM : Reel Motor
LM : Loading Motor
FOFE : Ejected Function Off
(Without Tape)
FOFS : Stopped Function Off
(With Tape)
AL : Always Function
LOC : Location(Detecting Rotary Encoder)
TLD : Tape Loading
TUL : Tape Unloading
LM ⊕ ON : Loading Motor Rotation
(Loading Direction)
RM ⊕ ON : Reel Motor Rotation
(PLAY Direction)
CMxX ⊕ ON : Capstan Motor Speedy Rotation
(CUE Direction)


PLAY DIRECTION
EJECT DIRECTION
ROTARY ENCODER OUTPUT
5V ①
5V ④
0V (GND)
5V ③
0V ②

P (TAPE IN)

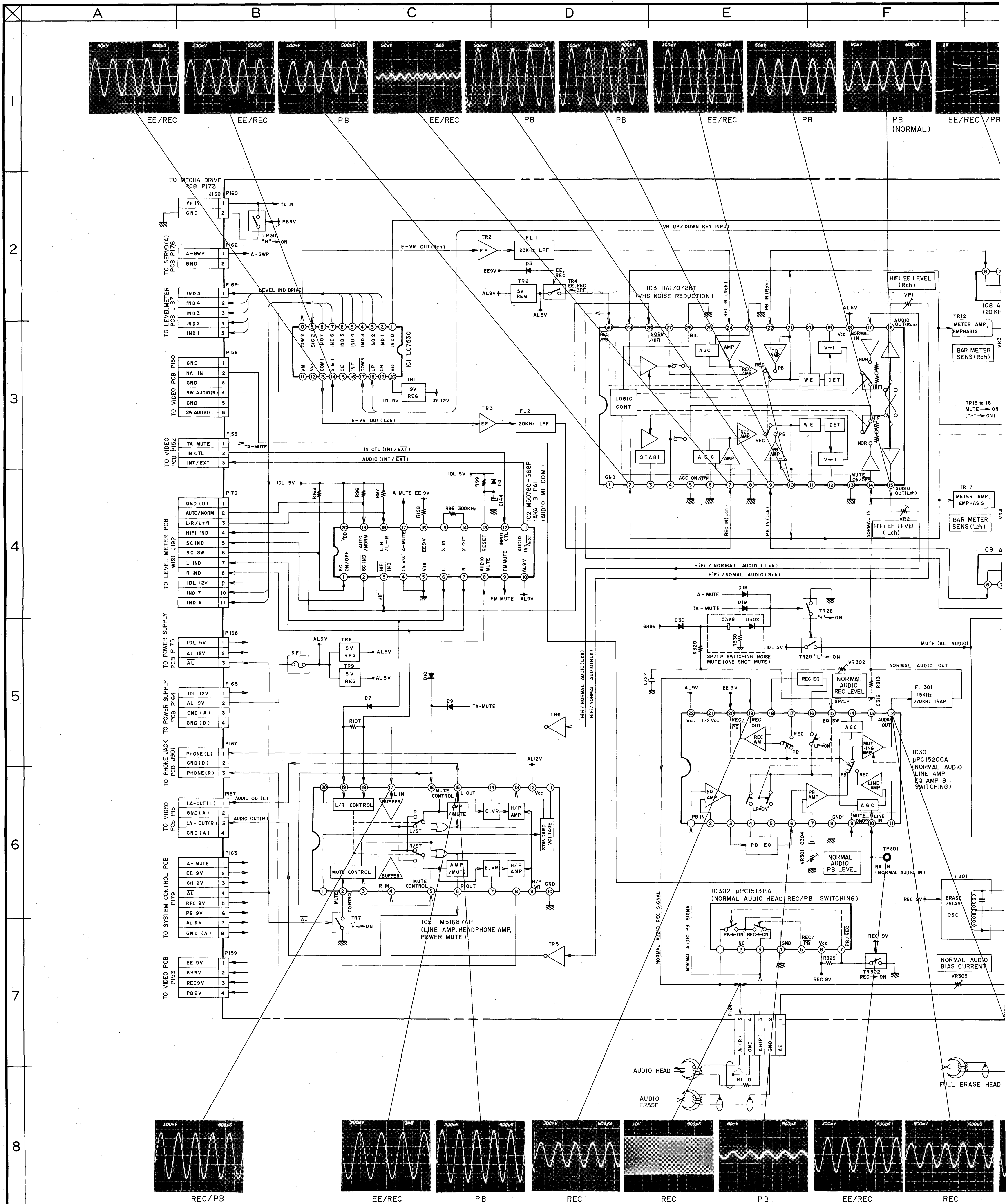

PLAY DIRECTION
ROTARY ENCODER OUTPUT
0V ①
0V ④
0V (GND)
0V ③
5V ②

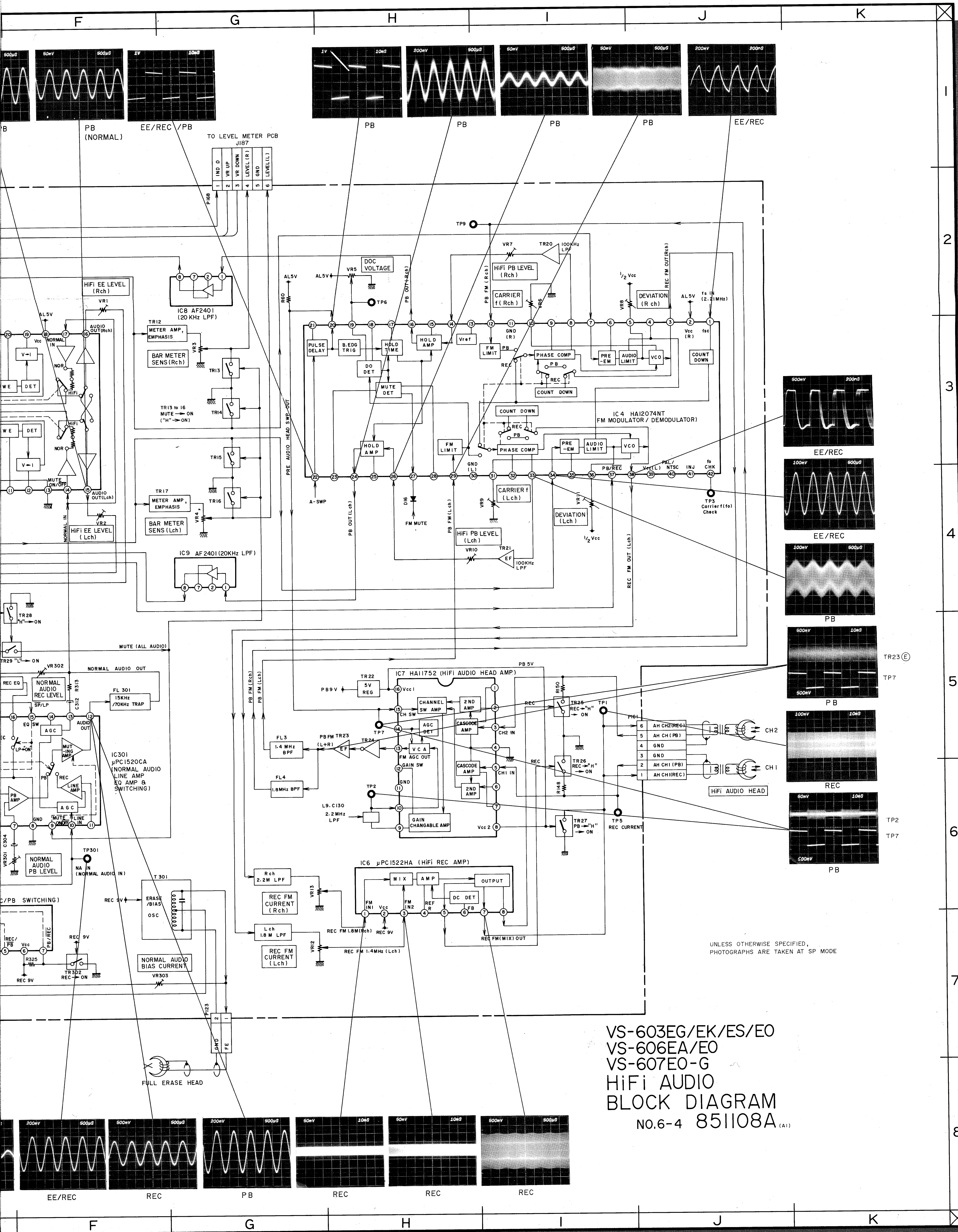
REVIEW


REVIEW DIRECTION
STOP DIRECTION
ROTARY ENCODER OUTPUT
5V (0V) ① ※
0V ④
0V (GND)
0V ③
0V ②

※ FROM STOP TO PLAY : 5V
FROM REVIEW TO PLAY : (0V)

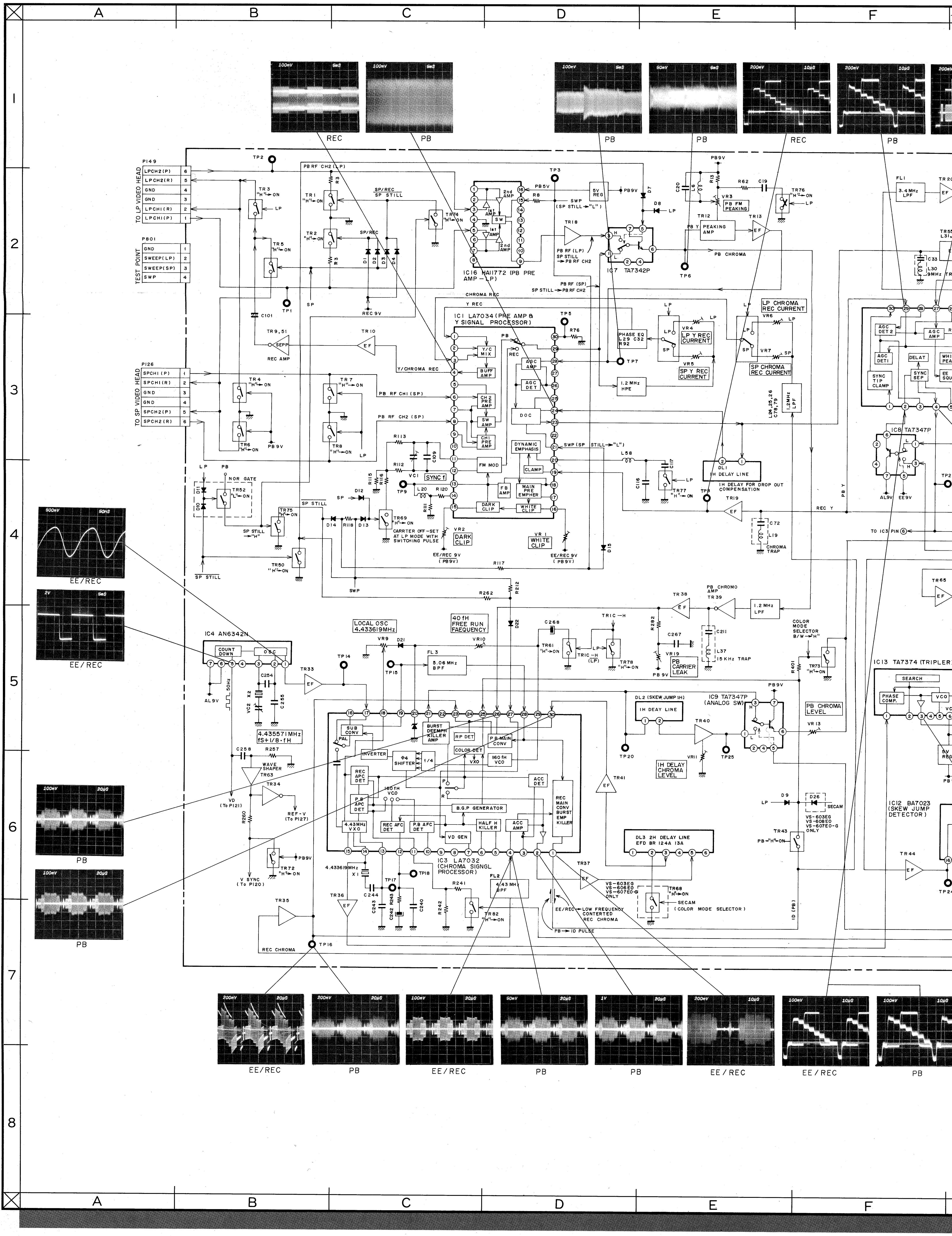
PLAY

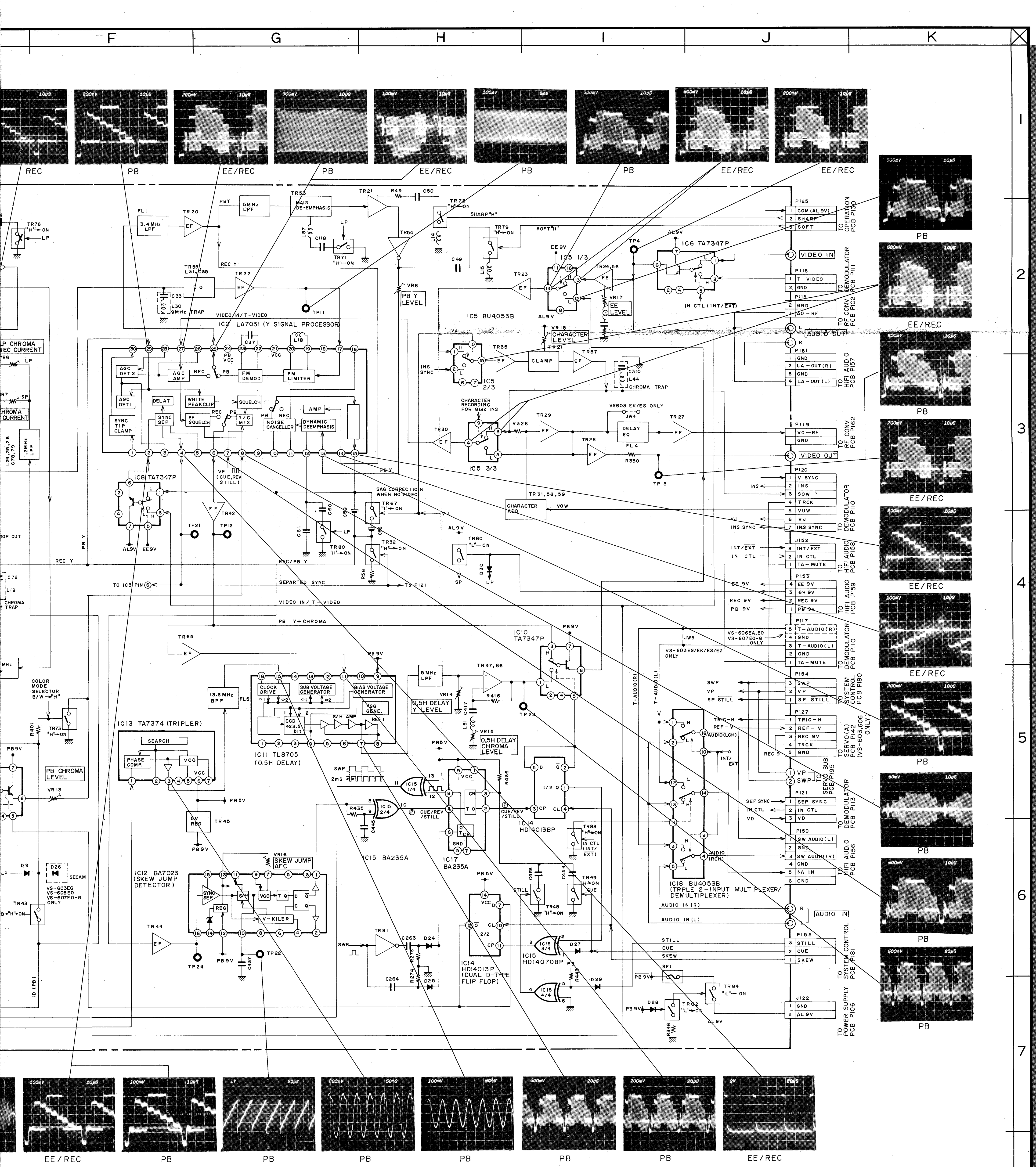

A
B
C
D
E
F
1
2
3
4
5
6
7
8
50mV 500μS
200mV 500μS
100mV 500μS
50mV 1mS
100mV 500μS
100mV 500μS
100mV 500μS
50mV 500μS
50mV 500μS
1V
EE/REC
EE/REC
PB
EE/REC
PB
PB
EE/REC
PB
PB (NORMAL)
EE/REC /PB
TO MECHA DRIVE PCB P173
J160
P160
fs IN
GND
fs IN
PB9V
TR30 "H"→ON
TO SERVO(A) PCB P176
P162
A-SWP
GND
A-SWP
TO LEVELMETER PCB J187
P169
IND 5
IND 4
IND 3
IND 2
IND 1
LEVEL IND DRIVE
TO VIDEO PCB P150
P156
GND
NA IN
GND
SW AUDIO(R)
GND
SW AUDIO(L)
TO VIDEO PCB P152
P158
TA MUTE
IN CTL
INT/EXT
TA-MUTE
IN CTL (INT/EXT)
AUDIO (INT/EXT)
TO LEVEL METER PCB W191 J192
P170
GND (D)
AUTO/NORM
L-R/L+R
HIFI IND
SC IND
SC SW
L IND
R IND
IDL 12V
IND 7
IND 6
TO POWER SUPPLY PCB P175
P166
IDL 5V
AL 12V
AL
TO POWER SUPPLY PCB P164
P165
IDL 12V
AL 9V
GND (A)
GND (D)
TO PHONE JACK PCB J901
P167
PHONE(L)
GND(D)
PHONE(R)
TO VIDEO PCB P151
P157
LA-OUT(L)
GND(A)
LA-OUT(R)
GND(A)
AUDIO OUT(L)
AUDIO OUT(R)
TO SYSTEM CONTROL PCB P179
P163
A-MUTE
EE 9V
6H 9V
AL
REC 9V
PB 9V
AL 9V
GND (A)
TO VIDEO PCB P153
P159
EE 9V
6H9V
REC9V
PB9V
IC1 LC7530
COM2
SIG 2
IND7
IND6
IND5
IND4
IND3
IND2
IND1
IND0
VM
Vss
COM1
SIG 1
CE
INT
DOWN
UP
CR
VDD
TR1
9V REG
IDL9V
IDL12V
E-VR OUT (Rch)
E-VR OUT (Lch)
TR2
EF
FL1
20KHz LPF
TR3
EF
FL2
20KHz LPF
EE9V
D3
EE, REC
TR4
EE, REC →OFF
TR8
5V REG
AL9V
AL5V
VR UP/DOWN KEY INPUT
IC3 HA17072NT (VHS NOISE REDUCTION)
REC/PB
NORM/HiFi
BIL
REC IN (Rch)
PB IN (Rch)
AGC
AMP
PB AMP
REC AMP
REC
PB
Vcc
V-I
NORMAL IN
AUDIO OUT(Rch)
NOR
HiFi
WE
DET
LOGIC CONT
STABI
GND
AGC ON/OFF
MUTE ON/OFF
AUDIO OUT(Lch)
REC IN(Lch)
PB IN (Lch)
NORMAL IN
HiFi EE LEVEL (Rch)
VR1
HiFi EE LEVEL (Lch)
VR2
AL5V
TR12
METER AMP, EMPHASIS
BAR METER SENS(Rch)
TR13 to 16 MUTE → ON ("H"→ON)
TR17
METER AMP, EMPHASIS
BAR METER SENS(Lch)
IC8 A (20 KH
IC9 A
VR3
VR4
IDL 5V
R162
R96
R97
A-MUTE EE 9V
R158
R99
D4
C144
R98 300KHz
IC2 M50760-368P :AKAI B-PAL (AUDIO MI-COM)
VDD
AUTO/NORM
L,R/L+R
A-MUTE
EE9V
X IN
X OUT
RESET
INPUT CTL
AUDIO INT/EXT
SC ON/OFF
SC IND
HiFi IND
CN Vss
Vss
L
R
AUDIO MUTE
FM MUTE
AL9V
HiFi
FM MUTE
AL9V
HiFi / NORMAL AUDIO (Lch)
HiFi /NORMAL AUDIO (Rch)
HiFi/NORMAL AUDIO(Lch)
HiFi/NORMAL AUDIO(Rch)
SF1
AL9V
TR8
5V REG
AL5V
TR9
5V REG
AL 5V
D10
D7
D9
TA-MUTE
R107
TR6
TR5
AL12V
IC5 M51687AP (LINE AMP, HEADPHONE AMP, POWER MUTE)
L/R CONTROL
BUFFER
L IN
MUTE CONTROL
L OUT
AMP /MUTE
E.VR
H/P AMP
Vcc
STANDARD VOLTAGE
R
L/ST
R/ST
L
MUTE CONTROL
BUFFER
R IN
MUTE CONTROL
R OUT
H/P VR
GND
MUTE CONTROL
AL
TR7 'H'→ON
A-MUTE
D18
TA-MUTE
D19
TR28 "H"→ON
6H9V
D301
C328
D302
R329
R330
IDL 5V
TR29 "L"→ON
SP/LP SWITCHING NOISE MUTE (ONE SHOT MUTE)
VR302
MUTE (ALL AUDIO)
NORMAL AUDIO OUT
C327
REC EQ
NORMAL AUDIO REC LEVEL
SP/LP
R313
C312
FL 301 15KHz /70KHz TRAP
AL9V
EE 9V
Vcc
1/2 Vcc
REC/PB
REC OUT
EQ SW
AGC
AUDIO OUT
REC AM
REC
PB
LP→ON
MUT -ING AMP
REC
LINE AMP
IC301 μPC1520CA (NORMAL AUDIO LINE AMP EQ AMP & SWITCHING)
EQ AMP
LP→ON
PB AMP
PB
AGC
PB IN
GND
MUTE ON/OFF
LINE IN
PB EQ
C304
VR301
NORMAL AUDIO PB LEVEL
TP301
NA IN (NORMAL AUDIO IN)
T 301
REC 9V
ERASE /BIAS OSC
NORMAL AUDIO BIAS CURRENT
VR303
IC302 μPC1513HA (NORMAL AUDIO HEAD REC/PB SWITCHING)
PB→ON
REC→ON
NC
GND
REC/PB
Vcc
PB/REC
REC 9V
R325
REC 9V
TR302 REC→ON
NORMAL AUDIO REC SIGNAL
NORMAL AUDIO PB SIGNAL
P124
AH(R)
GND
AH(P)
GND
AE
AUDIO HEAD
R1 10
AUDIO ERASE
FULL ERASE HEAD
100mV 500μS
200mV 1mS
200mV 500μS
500mV 500μS
10V 500μS
50mV 500μS
200mV 500μS
500mV 500μS
REC/PB
EE/REC
PB
REC
REC
PB
EE/REC
REC


F
G
H
I
J
K
1
2
3
4
5
6
7
8
PB
PB (NORMAL)
EE/REC /PB
EE/REC
REC
TO LEVEL METER PCB
J187
IND 0
VR UP
VR DOWN
LEVEL (R)
GND
LEVEL (L)
P168
TP9
VR7
TR20
100KHz LPF
HiFi PB LEVEL (Rch)
CARRIER f (Rch)
DEVIATION (R ch)
DOC VOLTAGE
TP6
AL5V
VR5
R60
HiFi EE LEVEL (Rch)
VR1
IC8 AF2401 (20 KHz LPF)
TR12
METER AMP, EMPHASIS
VR3
BAR METER SENS (Rch)
TR13
TR14
TR13 to 16 MUTE → ON ("H" → ON)
TR15
TR16
TR17
METER AMP, EMPHASIS
VR4
BAR METER SENS (Lch)
HiFi EE LEVEL (Lch)
VR2
IC9 AF2401 (20KHz LPF)
AUDIO OUT (Rch)
AUDIO OUT (Lch)
NORMAL IN
NOR
HiFi
MUTE ON/OFF
V→I
DET
PULSE DELAY
B.EDG TRIG
HOLD TIME
HOLD AMP
Vref
DO DET
MUTE DET
FM LIMIT
PHASE COMP
PRE -EM
AUDIO LIMIT
VCO
COUNT DOWN
IC4 HA12074NT FM MODULATOR / DEMODULATOR)
PRE AUDIO HEAD SWP-OUT
A-SWP
PB OUT (Lch)
PB OUT (Rch)
PB FM (Rch)
PB FM (Lch)
REC FM OUT (Rch)
REC FM OUT (Lch)
D16
FM MUTE
VR9
CARRIER f (Lch)
VR11
DEVIATION (Lch)
1/2 Vcc
HiFi PB LEVEL (Lch)
VR10
TR21
EF
100KHz LPF
TP3
Carrier f (fo) Check
fs IN (2.21MHz)
fo CHK
PAL/NTSC
INJ
Vcc (R)
Vcc (L)
GND (R)
GND (L)
PB/REC
TR28 "H" → ON
TR29 "L" → ON
MUTE (ALL AUDIO)
VR302
NORMAL AUDIO OUT
NORMAL AUDIO REC LEVEL
R313
C312
FL 301 15KHz /70KHz TRAP
REC EQ
SP/LP
EQ SW
AGC
MUT-ING AMP
LINE AMP
PB AMP
IC301 μPC1520CA (NORMAL AUDIO LINE AMP EQ AMP & SWITCHING)
VR301
C304
NORMAL AUDIO PB LEVEL
TP301
NA IN (NORMAL AUDIO IN)
REC/PB SWITCHING
R325
REC 9V
TR302 REC → ON
T 301
ERASE /BIAS OSC
NORMAL AUDIO BIAS CURRENT
VR303
P123
GND
FE
FULL ERASE HEAD
PB 5V
IC7 HA11752 (HiFi AUDIO HEAD AMP)
TR22
5V REG
PB9V
CHANNEL SW AMP
2ND AMP
AGC DET
CASCODE AMP
VCA
FM AGC OUT
GAIN SW
GAIN CHANGABLE AMP
CH SW
CH2 IN
CH1 IN
Vcc 2
TP7
TR23
TR24
PB FM (L+R)
FL3 1.4 MHz BPF
FL4 1.8MHz BPF
TP2
L9. C130 2.2MHz LPF
R150
TR25 REC → "H" → ON
TR26 REC → "H" → ON
TR27 PB → "H" → ON
R148
TP1
TP5 REC CURRENT
P161
AH CH2 (REC)
AH CH (PB)
AH CH1 (PB)
AH CH1 (REC)
CH2
CH1
HiFi AUDIO HEAD
TR23 Ⓔ
IC6 μPC1522HA (HiFi REC AMP)
MIX
AMP
OUTPUT
DC DET
FM IN1
FM IN2
REF R
FB
Rch 2.2M LPF
Lch 1.8 M LPF
REC FM CURRENT (Rch)
REC FM CURRENT (Lch)
VR13
VR12
REC FM 1.8M (Rch)
REC FM 1.4MHz (Lch)
REC FM (MIX) OUT
500μS
50mV
1V
10mS
200mV
100mV
500mV
200nS

UNLESS OTHERWISE SPECIFIED, PHOTOGRAPHS ARE TAKEN AT SP MODE

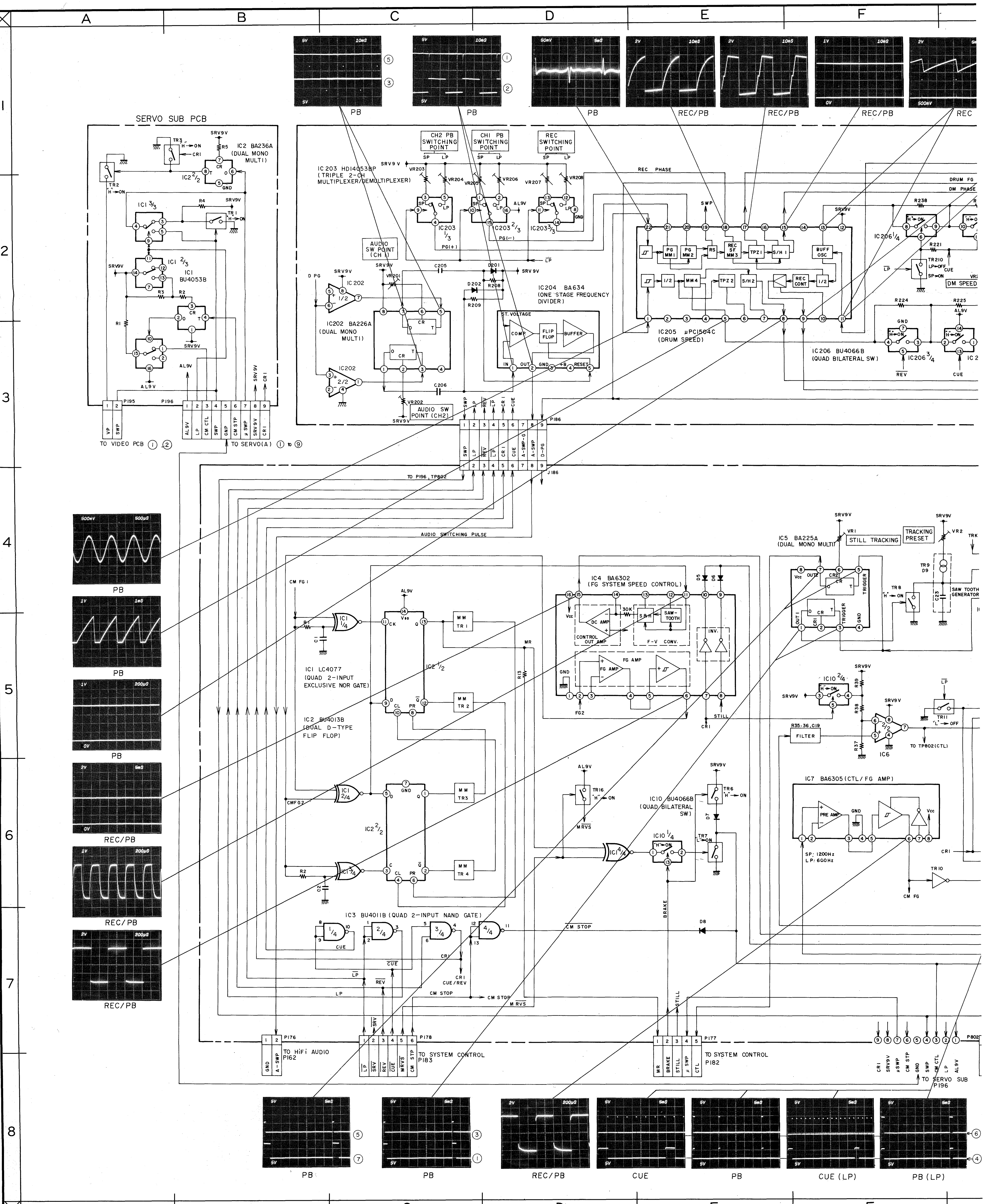
VS-603EG/EK/ES/EO
VS-606EA/EO
VS-607EO-G
HiFi AUDIO
BLOCK DIAGRAM
NO.6-4 851108A(A1)

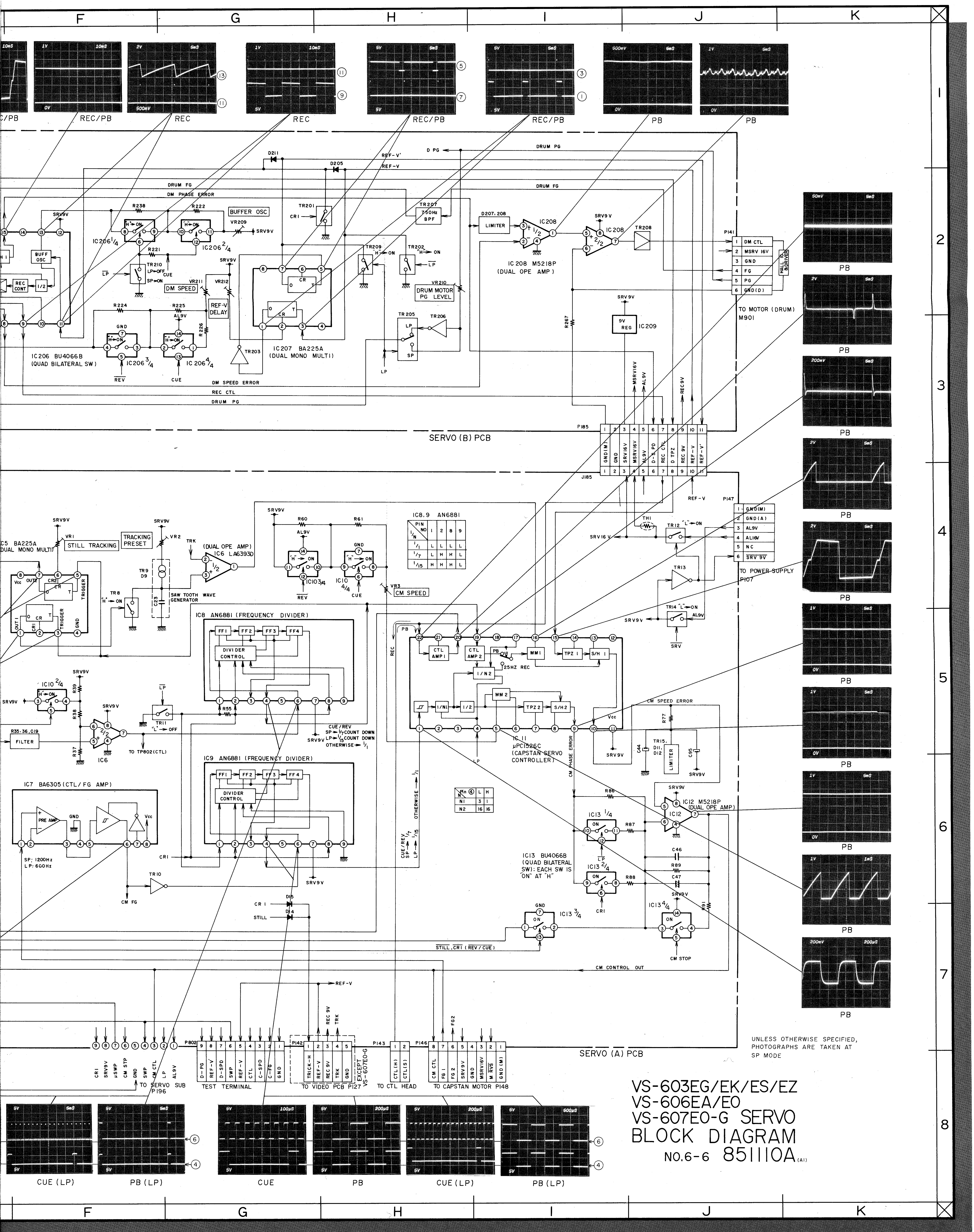

A
B
C
D
E
F
1
2
3
4
5
6
7
8
REC
PB
PB
PB
REC
PB
TO LP VIDEO HEAD
P149
LPCH2(P)
LPCH2(R)
GND
GND
LPCH1(R)
LPCH1(P)
TEST POINT
P801
GND
SWEEP(LP)
SWEEP(SP)
SWP
TO SP VIDEO HEAD
P126
SPCH1(P)
SPCH1(R)
GND
GND
SPCH2(P)
SPCH2(R)
TP2
TR3 "H"→ON
TR5 "H"→ON
TR1 "H"→ON
TR2 "H"→ON
PB RF CH2 (LP)
SP/REC
SP STILL
TR74 "H"→ON
IC16 HA11772 (PB PRE AMP - LP)
1st AMP
2nd AMP
SW
TP3
PB5V
R8
SWP (SP STILL→"L")
5V REG
PB9V
D7
D8
TR18
PB RF (LP) SP STILL → PB RF CH2
IC7 TA7342P
C20
L6
R13
VR3
PB FM PEAKING
R62
C19
TR76 "H"→ON
TR12
PEAKING AMP
TR13
EF
PB Y
TP6
PB CHROMA
FL1
3.4 MHz LPF
C33
L30
9MHz
D1
D2
D3
D4
REC 9V
TP1
SP
C101
TR9,51
SEPP
REC AMP
TR10
EF
Y/CHROMA REC
CHROMA REC
Y REC
PB RF (SP) SP STILL → PB RF CH2
IC1 LA7034 (PRE AMP & Y SIGNAL PROCESSOR)
TP5
R76
Y/C MIX
BUFF AMP
CH2 PRE AMP
SW AMP
CH1 PRE AMP
AGC AMP
AGC DET
DOC
DYNAMIC EMPHASIS
CLAMP
MAIN PRE EMPHER
FM MOD
FB AMP
DARK CLIP
WHITE CLIP
PHASE EQ L29 C32 R92
TP7
LP
VR4
LP Y REC CURRENT
VR5
SP Y REC CURRENT
1.2 MHz HPF
LP CHROMA REC CURRENT
VR6
VR7
SP CHROMA REC CURRENT
L24,25,26 C78,79
1.2MHz LPF
AGC DET 2
AGC AMP
AGC DET1
DELAT
SYNC TIP CLAMP
SYNC SEP
IC8 TA7347P
AL9V
EE9V
TR4 "H"→ON
TR6 "H"→ON
PB 9V
TR7 "H"→ON
TR8 "H"→ON
PB RF CH1 (SP)
PB RF CH2 (SP)
R113
C109
R112
VC1
SYNC f
R115
R116
TP9
L20
R120
R111
SWP (SP STILL→"L")
L58
C117
C116
TR77 "H"→ON
DL1
1H DELAY LINE
1H DELAY FOR DROP OUT COMPENSATION
TP8
TR19
EF
REC Y
C72
L19
CHROMA TRAP
TO IC3 PIN ⑥
LP
PB
NOR GATE
D11
D10
TR52 "L"→ON
TR75 "H"→ON
SP STILL "H"
SP STILL
D12
D14
R118
D13
TR69 "H"→ON
CARRIER OFF-SET AT LP MODE WITH SWITCHING PULSE
VR2
DARK CLIP
EE/REC 9V (PB9V)
VR1
WHITE CLIP
D15
TR50 "H"→ON
R117
SWP
R262
R212
TR38
EF
PB CHROMO AMP
TR39
1.2 MHz LPF
TR65
EF
EE/REC
EE/REC
IC4 AN6342N
COUNT DOWN
OSC
AL9V
50Hz
X2
VC2
C254
C255
4.433571MHz fS+1/8·fH
C258
R257
WAVE SHAPER
TR63
TR34
REF-V (To P127)
VD (To P121)
R260
TR72 "H"→ON
V SYNC (To P120)
LOCAL OSC 4.433619MHz
VR9
D21
TP14
TP15
FL3
5.06 MHz BPF
40fH FREE RUN FAEQUENCY
VR10
D22
C268
TR61 "H"→ON
TRIC-H
TRIC-H (LP)
TR78 "H"→ON
R282
C267
VR19
PB CARRIER LEAK
PB 9V
C211
L37
15KHz TRAP
COLOR MODE SELECTOR B/W→"H"
R401
TR73 "H"→ON
IC13 TA7374 (TRIPLER)
SEARCH
PHASE COMP.
VCO
TR33
EF
SUB CONV
PAL
INVERTER
Φ4 SHIFTER
1/4
BURST DEEMPH KILLER AMP
RP DET
COLOR DET
VXO
PB MAIN CONV
160 fH VCO
REC APC DET
PB APC DET
160 fH VCO
B.G.P GENERATOR
ACC DET
REC MAIN CONV BURST EMP KILLER
4.43MHz VXO
REC AFC DET
P.B AFC DET
VD GEN
HALF H KILLER
ACC AMP
IC3 LA7032 (CHROMA SIGNGL PROCESSOR)
4.433619MHz
X1
TP17
TP18
C244
C243
R243
C242
C240
R241
R242
FL2
4.43 MHz BPF
TR82 "H"→ON
TR36
EF
TR35
TP16
REC CHROMA
DL2 (SKEW JUMP 1H)
1H DEAY LINE
TP20
TR40
VR11
TP25
1H DELAY CHROMA LEVEL
TR41
EF
IC9 TA7347P (ANALOG SW)
PB9V
PB CHROMA LEVEL
VR13
D9
D26
SECAM
VS-603EG VS-608EO VS-607EO-G ONLY
TR43
PB→"H"→ON
DL3 2H DELAY LINE EFD BR 124A 13A
TR37
EF
VS-603EG VS-606EO VS-607EO-G ONLY
TR68 "H"→ON
SECAM (COLOR MODE SELECTOR)
EE/REC→LOW FREQUENCY CONTERTED REC CHROMA
PB→ID PULSE
ID (PB)
IC12 BA7023 (SKEW JUMP DETECTOR)
TR44
EF
PB Y
PB
PB
EE/REC
PB
EE/REC
PB
PB
EE/REC
EE/REC
PB
100mV
5mS
500mV
50μS
2V
200mV
20μS
10μS
50mV
1V


F
G
H
I
J
K
1
2
3
4
5
6
7
8
REC
PB
EE/REC
PB
EE/REC
PB
PB
EE/REC
EE/REC
PB
EE/REC
PB
EE/REC
EE/REC
EE/REC
PB
PB
PB
PB
IC2 LA7031 (Y SIGNAL PROCESSOR)
AGC DET 2
AGC DET1
AGC AMP
FM DEMOD
FM LIMITER
SYNC TIP CLAMP
DELAT
SYNC SEP
WHITE PEAKCLIP
EE SQUELCH
SQUELCH
Y/C MIX
NOISE CANCELLER
DYNAMIC DEEMPHASIS
AMP
FL1
3.4 MHz LPF
TR20
EF
5MHz LPF
TR53
MAIN DE-EMPHASIS
TR21
R49
C50
TR78 "H"→ON
SHARP "H"
SOFT "H"
TR79 "H"→ON
TR54
TR71 "H"→ON
PB Y LEVEL
VR8
TR55 L31, C35
EQ
TR22
L30 9MHz TRAP
TP11
VIDEO IN / T-VIDEO
IC5 1/3
IC5 BU4053B
IC6 TA7347P
TP4
TR23
TR24,56
EE LEVEL
VR17
VR18
CHARACTER LEVEL
TR35
CLAMP
TR57
C310 L44 CHROMA TRAP
CHARACTER RECORDING FOR 8sec INS
VS603 EK/ES ONLY
JW4
DELAY EQ
FL4
TR29
TR27
TR28
TR30
IC5 3/3
IC5 2/3
R326
R330
TP13
TR31,58,59
CHARACTER ADD
IC8 TA7347P
TR42
TP21
TP12
VP (CUE,REV STILL)
SAG CORRECTION WHEN NO VIDEO
TR67 "L"→ON
TR80 "H"→ON
TR32 "H"→ON
TR60 "L"→ON
D30
REC Y
REC/PB Y
SEPARTED SYNC
TO IC3 PIN 6
To P121
VIDEO IN / T-VIDEO
PB Y+CHROMA
TR65
IC10 TA7347P
PB9V
5MHz LPF
TR47,66
VR14
R416
0.5H DELAY Y LEVEL
VR15
0.5H DELAY CHROMA LEVEL
TP23
IC11 TL8705 (0.5H DELAY)
CLOCK DRIVE
SUB VOLTAGE GENERATOR
BIAS VOLTAGE GENERATOR
CCD 423.5 bit
S/H AMP
VG GENE.
13.3 MHz BPF
FL5
IC13 TA7374 (TRIPLER)
SEARCH
PHASE COMP.
VCO
5V REG
TR45
PB5V
IC12 BA7023 (SKEW JUMP DETECTOR)
SKEW JUMP AFC
VR16
SYNC SEP
REG
V-KILER
TR44
TP24
TP22
IC15 1/4
IC15 2/4
IC15 BA235A
IC17 BA235A
CUE/REV /STILL
IC14 HD14013BP
IC14 HD14013P (DUAL D-TYPE FLIP FLOP)
IC15 HD14070BP
IC15 3/4
IC15 4/4
TR81
TR88 IN CTL (INT/EXT)
TR48 "H"→ON
TR49 "H"→ON CUE
D27
D29
SF1
TR84 "L"→ON
TR62 "L"→ON
D28
IC18 BU4053B (TRPLE 2-INPUT MULTIPLEXER/ DEMULTIPLEXER)
AUDIO IN (R)
AUDIO IN (L)
T-AUDIO (R)
T-AUDIO (L)
JW5
VS-603EG/EK/ES/EZ ONLY
VS-606EA,EO VS-607EO-G ONLY
COLOR MODE SELECTOR B/W→"H"
TR73 "H"→ON
PB CHROMA LEVEL
VR13
TR43
VS-603EG VS-608EO VS-607EO-G ONLY
SECAM
LP CHROMA REC CURRENT
CHROMA CURRENT
P125 COM (AL 9V) SHARP SOFT
TO OPERATION PCB P130
VIDEO IN
P116 T-VIDEO GND
TO DEMODULATOR PCB P111
P118 GND AO-RF
TO RF CONV PCB P102
AUDIO OUT
P151 GND LA-OUT(R) GND LA-OUT(L)
TO HiFi AUDIO PCB P157
P119 VO-RF GND
TO RF CONV PCB P162
VIDEO OUT
P120 V SYNC INS SOW VUW TRCK VJ INS SYNC
TO DEMODULATOR PCB P110
J152 INT/EXT IN CTL TA-MUTE
TO HiFi AUDIO PCB P158
P153 EE 9V 6H 9V REC 9V PB 9V
TO HiFi AUDIO PCB P159
P117 T-AUDIO(R) GND T-AUDIO(L) GND TA-MUTE
TO DEMODULATOR PCB P110
P154 SWP VP SP STILL
TO SYSTEM CONTROL PCB P180
P127 TRIC-H REF-V REC 9V TRCK GND
TO SERVO(A) PCB P142 (VS-603,606 ONLY)
VP SWP
TO SERVO SUB PCB P195
P121 SEP SYNC IN CTL VD
TO DEMODULATOR PCB P113
P150 SW AUDIO(L) GND SW AUDIO(R) GND NA IN GND
TO HiFi AUDIO PCB P156
AUDIO IN
P155 STILL CUE SKEW
TO SYSTEM CONTROL PCB P181
J122 GND AL 9V
TO POWER SUPPLY PCB P106
500mV 10μS
200mV 10μS
100mV 5mS
100mV 10μS
50mV 10μS
500mV 20μS
1V 20μS
200mV 50nS
100mV 50nS
200mV 20μS
2V 20μS

UNLESS OTHERWISE SPECIFID, PHOTOGRAPHS ARE TAKEN AT SP MODE

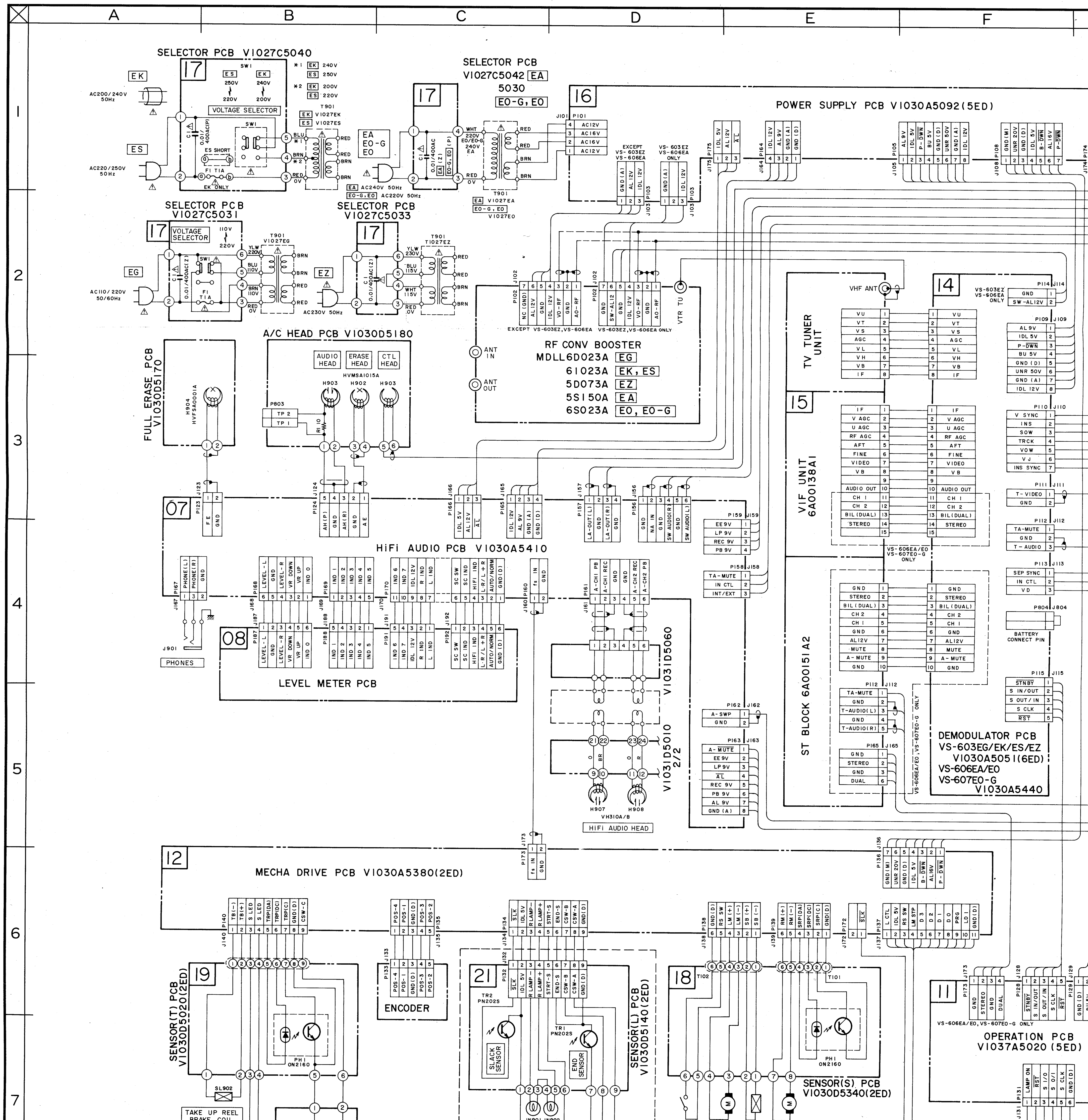
VS-603EG/EK/ES/EZ
VS-606EA/EO
VS-607EO-G VIDEO
BLOCK DIAGRAM
NO.6-5 851109A


A
B
C
D
E
F
1
2
3
4
5
6
7
8
PB
REC/PB
REC
SERVO SUB PCB
IC2 BA236A (DUAL MONO MULTI)
IC1 BU4053B
TR1
TR2
TR3
SRV9V
AL9V
P195
P196
VP
SWP
TO VIDEO PCB ① ②
AL9V
LP
CM CTL
SWP
GND
CM STP
μSWP
SRV9V
CR1
TO SERVO(A) ① to ⑨
CH2 PB SWITCHING POINT
CH1 PB SWITCHING POINT
REC SWITCHING POINT
IC203 HD14053BP (TRIPLE 2-CH MULTIPLEXER/DEMULTIPLEXER)
VR203
VR204
VR205
VR206
VR207
VR208
PG(+)
PG(−)
AUDIO SW POINT (CH1)
AUDIO SW POINT (CH2)
D PG
IC202 BA226A (DUAL MONO MULTI)
VR201
VR202
C205
C206
D201
D202
R208
R209
IC204 BA634 (ONE STAGE FREQUENCY DIVIDER)
ST. VOLTAGE
COMP
FLIP FLOP
BUFFER
RESET
REC PHASE
SWP
PG MM1
PG MM2
RS
REC SF MM3
TPZ1
S/H1
BUFF OSC
MM4
TPZ2
S/H2
REC CONT
IC205 μPC1504C (DRUM SPEED)
DRUM FG
DM PHASE
DM SPEED
R238
R221
R224
R225
TR210
LP→OFF CUE
SP→ON
IC206 BU4066B (QUAD BILATERAL SW)
REV
CUE
P186
J186
A-SWP-G
A-SWP
D-PG
TO P196, TP802
AUDIO SWITCHING PULSE
CM FG1
IC1 LC4077 (QUAD 2-INPUT EXCLUSIVE NOR GATE)
IC2 BU4013B (DUAL D-TYPE FLIP FLOP)
MM TR1
MM TR2
MM TR3
MM TR4
MR
R13
CMFG2
IC4 BA6302 (FG SYSTEM SPEED CONTROL)
DC AMP
S&H
SAW-TOOTH
F-V CONV.
CONTROL OUT AMP
FG AMP
INV.
FG2
STILL
D5
D6
IC3 BU4011B (QUAD 2-INPUT NAND GATE)
CM STOP
CR1 CUE/REV
M RVS
TR16
MRVS
IC10 BU4066B (QUAD BILATERAL SW)
TR6
TR7
D7
D8
BRAKE
IC5 BA225A (DUAL MONO MULTI)
VR1
STILL TRACKING
TRACKING PRESET
VR2
TR8
TR9
D9
C23
SAW TOOTH GENERATOR
TRIGGER
R39
R38
R37
IC6
TR11
"L" → OFF
FILTER
R35·36, C19
TO TP802(CTL)
IC7 BA6305(CTL/FG AMP)
PRE AMP
SP: 1200Hz
LP: 600Hz
TR10
CM FG
P176
GND
A-SWP
TO HiFi AUDIO P162
P178
SRV
MRVS
CM STP
TO SYSTEM CONTROL P183
P177
MR
BRAKE
STILL
μSWP
CTL
TO SYSTEM CONTROL P182
P802
TO SERVO SUB P196
CUE
CUE (LP)
PB (LP)
500mV 500μS
1V 1mS
1V 200μS
2V 5mS
5V 10mS
50mV 5mS
2V 10mS
1V 10mS
2V 200μS
5V 5mS

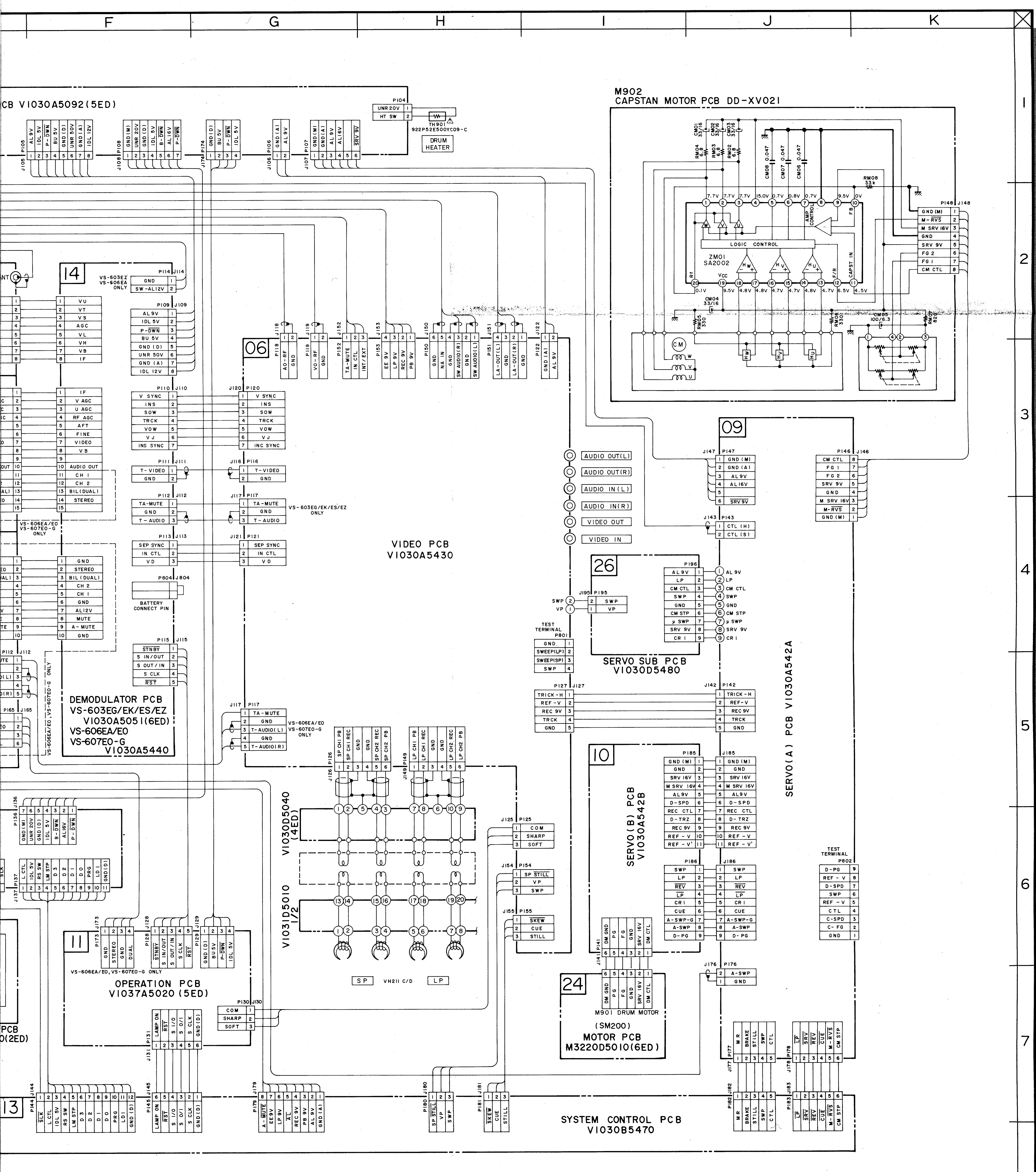

F
G
H
I
J
K
1
2
3
4
5
6
7
8
REC/PB
REC
REC
REC/PB
REC/PB
PB
PB
DRUM PG
D PG
DRUM FG
DM PHASE ERROR
D211
D205
REF-V'
REF-V
SRV9V
R238
R222
BUFFER OSC
VR209
IC206 1/4
IC206 2/4
R221
TR210
LP→OFF
SP→ON
CUE
DM SPEED
VR211
VR212
REF-V DELAY
BUFF OSC
REC CONT
1/2
R224
R225
AL9V
R226
IC206 BU4066B
(QUAD BILATERAL SW)
IC206 3/4
IC206 4/4
REV
CUE
DM SPEED ERROR
REC CTL
DRUM PG
TR201
CR1
TR207
750Hz BPF
TR209
TR202
"H"→ON
LP
DRUM MOTOR PG LEVEL
VR210
TR205
TR206
SP
IC207 BA225A
(DUAL MONO MULTI)
TR203
D207, 208
LIMITER
IC208
IC208 M5218P
(DUAL OPE AMP)
TR208
P141
DM CTL
MSRV 16V
GND
FG
PG
GND(D)
HALL IC & DRIVER
TO MOTOR (DRUM) M901
9V REG
IC209
R267
SERVO (B) PCB
P185
J185
GND(M)
GND
SRV16V
MSRV16V
AL9V
D-S PD
REC CTL
D TPZ
REC 9V
REF-V
REF-V'
REF-V
P147
GND(M)
GND(A)
AL9V
ALI6V
NC
SRV 9V
TO POWER SUPPLY P107
TH1
TR12 "L"→ON
SRV16 V
TR13
TR14 "L"→ON
SRV
IC5 BA225A
(DUAL MONO MULTI)
VR1
STILL TRACKING
TRACKING PRESET
VR2
TRK
(DUAL OPE AMP)
IC6 LA6393D
TR9 D9
C23
SAW TOOTH WAVE GENERATOR
TR8
TRIGGER
IC8,9 AN6881
R60
R61
IC10 3/4
IC10 4/4
VR3
CM SPEED
IC8 AN6881 (FREQUENCY DIVIDER)
FF1
FF2
FF3
FF4
DIVIDER CONTROL
R55
IC10 2/4
R39
R38
R37
TR11 "L"→OFF
FILTER
R35,36,C19
IC6
TO TP802(CTL)
CUE/REV
SP→1/7COUNT DOWN
LP→1/15COUNT DOWN
OTHERWISE→1/1
IC9 AN6881 (FREQUENCY DIVIDER)
IC7 BA6305 (CTL/FG AMP)
PRE AMP
SP: 1200Hz
LP: 600Hz
TR10
CM FG
CR1
SRV9V
D15
D14
STILL
CTL AMP1
CTL AMP2
MM1
TPZ1
S/H1
1/N2
25HZ REC
1/N1
MM2
TPZ2
S/H2
IC11 μPC1386C
(CAPSTAN SERVO CONTROLLER)
CM SPEED ERROR
R77
TR15, D11, D12
LIMITER
C44
C95
CM PHASE ERROR
R86
IC13 1/4
IC12 M5218P
(DUAL OPE AMP)
R87
C46
R89
C47
IC13 2/4
R88
IC13 BU4066B
(QUAD BILATERAL SW): EACH SW IS "ON" AT "H"
IC13 3/4
IC13 4/4
R91
CM STOP
STILL, CR1 (REV/CUE)
CM CONTROL OUT
REF-V
REC 9V
TRK
FG2
P802
P142
P143
P146
CR1
SRV9V
μSWP
CM STP
GND
SWP
CM CTL
LP
AL9V
TO SERVO SUB P196
D-PG
REF-V
D-SPD
SWP
REF-V
CTL
C-SPD
C-FG
GND
TEST TERMINAL
TRICK-H
REF-C
REC 9V
TRK
GND
EXCEPT VS-607EO-G
TO VIDEO PCB P127
CTL(H)
CTL(S)
TO CTL HEAD
CM CTL
FG1
FG2
SRV9V
GND
MSRV16V
M RVS
GND(M)
TO CAPSTAN MOTOR P148
SERVO (A) PCB
CUE (LP)
PB (LP)
CUE
PB
CUE (LP)
PB (LP)
PB

UNLESS OTHERWISE SPECIFIED,
PHOTOGRAPHS ARE TAKEN AT
SP MODE

VS-603EG/EK/ES/EZ
VS-606EA/EO
VS-607EO-G SERVO
BLOCK DIAGRAM
NO.6-6 851110A(A1)



A
B
C
D
E
F
1
2
3
4
5
6
7
8
SELECTOR PCB V1027C5040
17
EK
ES
250V
240V
220V
200V
VOLTAGE SELECTOR
SW1
ES SHORT
EK ONLY
F1 T1A
*1 EK 240V
ES 250V
*2 EK 200V
ES 220V
T901
EK V1027EK
ES V1027ES
AC200/240V 50Hz
AC220/250V 50Hz
BLU
BRN
RED
SELECTOR PCB
V1027C5042 EA
5030
EO-G, EO
EA
EO-G
EO
WHT
220V EO/EO-G
240V EA
0V
EA AC240V 50Hz
EO-G, EO AC220V 50Hz
T901
EA V1027EA
EO-G, EO V1027EO
16
POWER SUPPLY PCB V1030A5092(5ED)
AC12V
AC16V
EXCEPT VS-603EZ VS-606EA
VS-603EZ VS-606EA ONLY
SELECTOR PCB V1027C5031
VOLTAGE SELECTOR
110V
220V
T901 V1027EG
EG
AC110/220V 50/60Hz
SELECTOR PCB V1027C5033
T901 T1027EZ
EZ
AC230V 50Hz
YLW 230V
BLU 115V
WHT 115V
EXCEPT VS-603EZ,VS-606EA
VS-603EZ,VS-606EA ONLY
VTR TU
ANT IN
ANT OUT
RF CONV BOOSTER
MDLL6D023A EG
61023A EK, ES
5D073A EZ
5S150A EA
6S023A EO, EO-G
VHF ANT
TV TUNER UNIT
14
VS-603EZ VS-606EA ONLY
SW-AL12V
VU
VT
VS
AGC
VL
VH
VB
IF
15
VIF UNIT 6A00138A1
V AGC
U AGC
RF AGC
AFT
FINE
VIDEO
AUDIO OUT
CH 1
CH 2
BIL(DUAL)
STEREO
VS-606EA/EO VS-607EO-G ONLY
ST BLOCK 6A00151A2
A-MUTE
MUTE
T-AUDIO(L)
T-AUDIO(R)
DUAL
DEMODULATOR PCB
VS-603EG/EK/ES/EZ
V1030A5051(6ED)
VS-606EA/EO
VS-607EO-G
V1030A5440
FULL ERASE PCB V1030D5170
H904 HVFSA0001A
A/C HEAD PCB V1030D5180
AUDIO HEAD
ERASE HEAD
CTL HEAD
HVMSA1015A
H903
H902
P803
TP2
TP1
R110
07
FE
GND
AH(P)
AH(R)
AE
HiFi AUDIO PCB V1030A5410
PHONE(L)
PHONE(R)
J901
PHONES
08
LEVEL METER PCB
LEVEL-L
LEVEL-R
VR DOWN
VR UP
IND 0
IND 1
IND 2
IND 3
IND 4
IND 5
IND 6
IND 7
IDL 12V
R IND
L IND
SC SW
HIFI IND
AUTO/NORM
fs IN
V1031D5060
V1031D5010 2/2
H907
H908
VH310A/8
HiFi AUDIO HEAD
EE 9V
LP 9V
REC 9V
PB 9V
TA-MUTE
IN CTL
INT/EXT
A-SWP
V SYNC
INS
SOW
TRCK
VOW
VJ
INS SYNC
T-VIDEO
T-AUDIO
SEP SYNC
VD
BATTERY CONNECT PIN
STNBY
S IN/OUT
S OUT/IN
S CLK
RST
12
MECHA DRIVE PCB V1030A5380(2ED)
19
SENSOR(T) PCB V1030D5020(2ED)
PH1 ON2160
SL902
TAKE UP REEL BRAKE COIL
CASSETTE SW PCB V1030D5320
SW1
20
D1 LN59
SENSOR LED PCB V1030D5350
ENCODER
POS-1
POS-2
POS-3
POS-4
21
TR2 PN202S
SLACK SENSOR
TR1 PN202S
END SENSOR
SENSOR(L) PCB V1030D5140(2ED)
IN901 IN902
(L) (R)
R LAMP
22
R1 330
D1 LN68
START SENSOR
SENSOR(R) PCB V1030D5150
23
SW(EJ) PCB V1030D5190
NO
NC
EJECTOR BLK
18
T102
T101
SENSOR(S) PCB V1030D5340(2ED)
REC SAFETY
M903 MXN-13AD12
LOADING MOTOR
SL901
SUPPLY REEL BRAKE COIL
M904 JME28-K
REEL MOTOR
11
OPERATION PCB V1037A5020(5ED)
VS-606EA/EO, VS-607EO-G ONLY
13
LAMP ON
SLK
LM STP
PRG
LD1
001798
WARNI
AVERTI


CB V1030A5092(5ED)
DRUM HEATER
TH901 922P52E500YC09-C
M902
CAPSTAN MOTOR PCB DD-XV021
ZM01 SA2002
LOGIC CONTROL
14
06
VIDEO PCB V1030A5430
09
26
SERVO SUB PCB V1030D5480
SERVO(A) PCB V1030A542A
10
SERVO(B) PCB V1030A542B
24
M901 DRUM MOTOR
(SM200)
MOTOR PCB M3220D5010(6ED)
DEMODULATOR PCB
VS-603EG/EK/ES/EZ
V1030A5051(6ED)
VS-606EA/EO
VS-607EO-G
V1030A5440
11
OPERATION PCB V1037A5020(5ED)
V1030D5040 (4ED)
V1031D5010 1/2
SP
VH211 C/D
LP
13
SYSTEM CONTROL PCB V1030B5470
TEST TERMINAL P801
TEST TERMINAL P802
BATTERY CONNECT PIN
AUDIO OUT(L)
AUDIO OUT(R)
AUDIO IN(L)
AUDIO IN(R)
VIDEO OUT
VIDEO IN
F
G
H
I
J
K
1
2
3
4
5
6
7
8

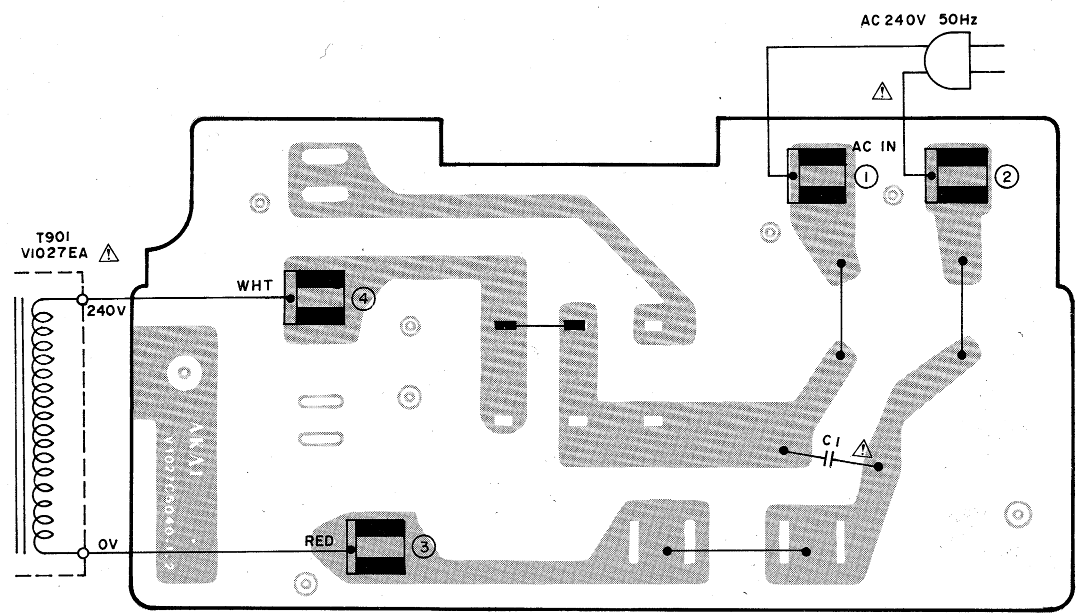
WARNING: ⚠ INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY. REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

AVERTISSEMENT: ⚠ IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDÉES PAR LE FABRICANT

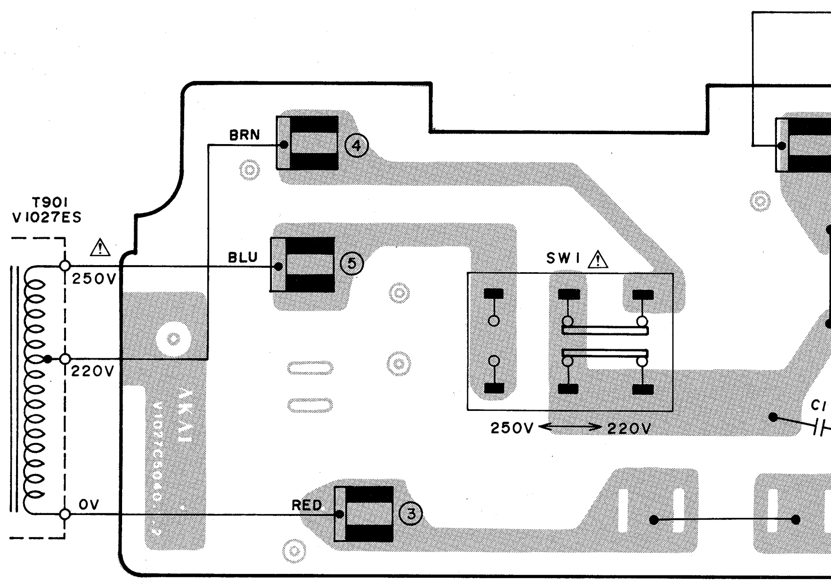
NOTE

UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS 1/4W(J)
ALL CAPACITORS IN μF 50WV(J)
POWER TRANSFORMER IS DIFFERENT ACCORDING TO AREA

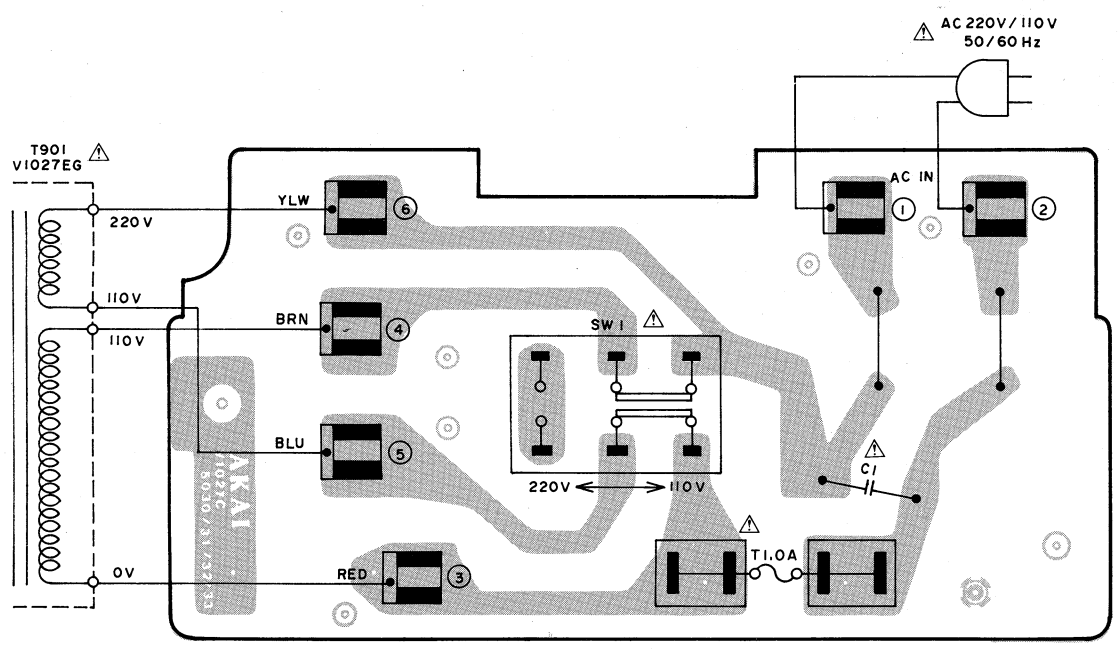
VS-603EG/EK/ES/EZ
VS-606EA/EO
VS-607EO-G
CONNECTION DIAGRAM
NO.20-1 851102A


AC 240V 50Hz
AC IN
T901
V1027EA
WHT
240V
0V
RED
C1
AKAI
V1027C5040-1-2

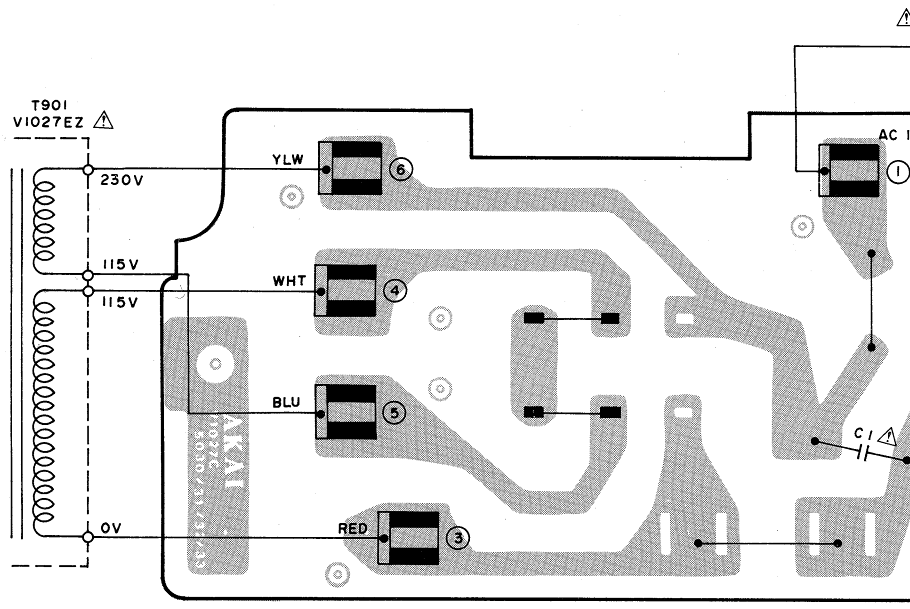
SELECTOR PCB V1027C5042 EA


T901
V1027ES
BRN
BLU
250V
220V
SW1
250V 220V
0V
RED
C1
AKAI

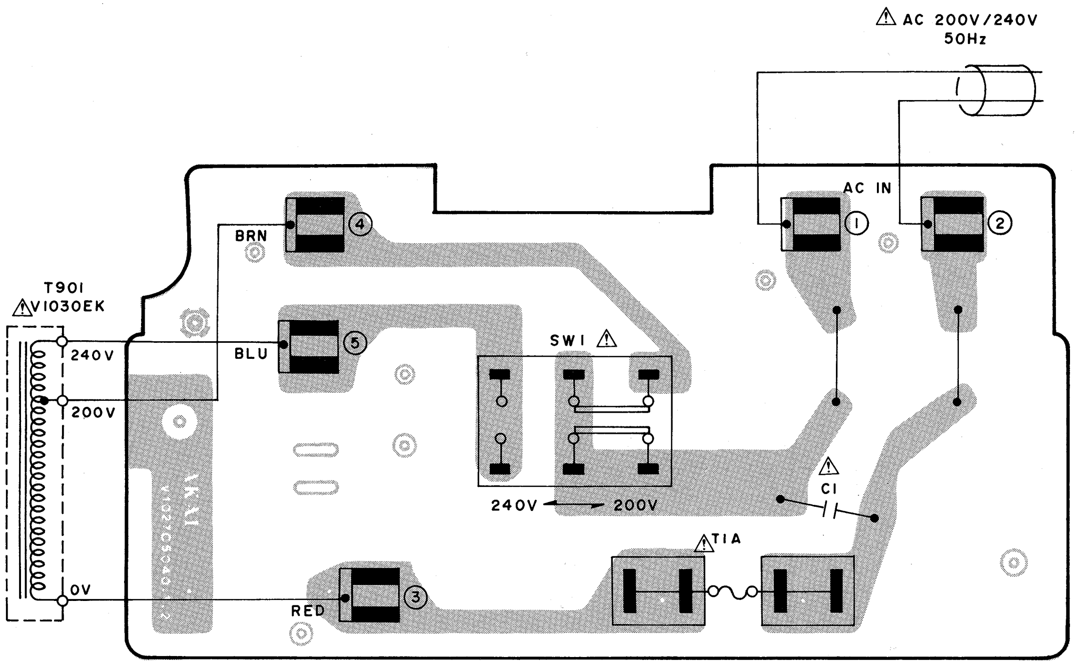
SELECTOR PCB V1027C5042 ES


AC 220V/110V
50/60 Hz
AC IN
T901
V1027EG
YLW
220V
110V
110V
BRN
SW1
BLU
220V 110V
C1
0V
RED
T1.0A
AKAI

SELECTOR PCB V1027C5031 EG


T901
V1027EZ
AC I
YLW
230V
115V
115V
WHT
BLU
C1
0V
RED
AKAI

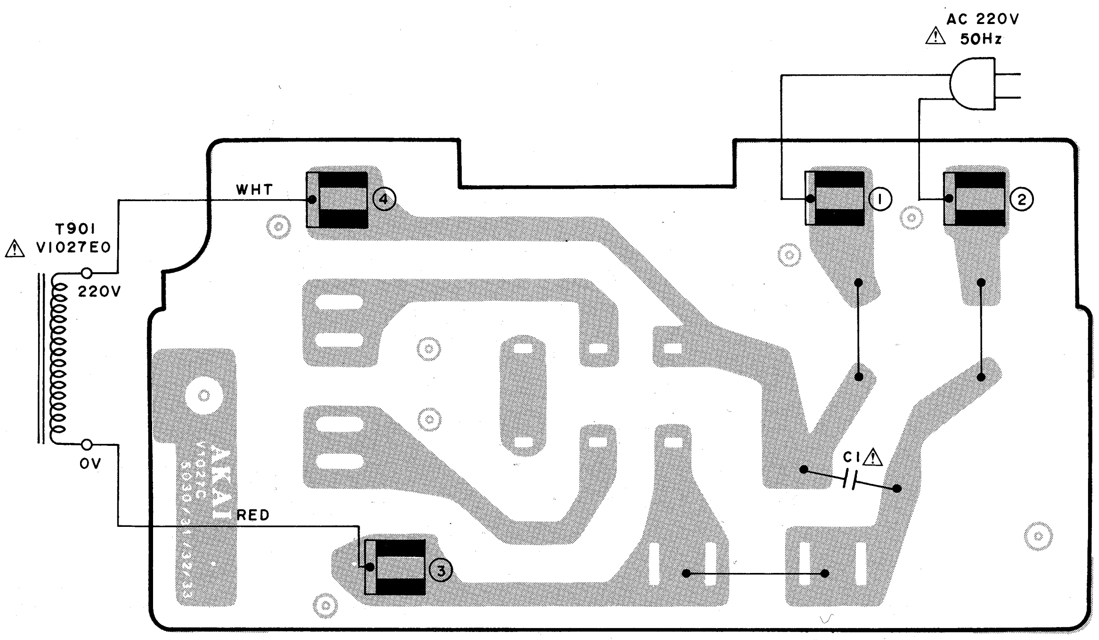
SELECTOR PCB V1027C5033 EZ


AC 200V/240V
50Hz
AC IN
T901
V1030EK
BRN
BLU
240V
200V
SW1
240V 200V
C1
T1A
0V
RED
AKAI

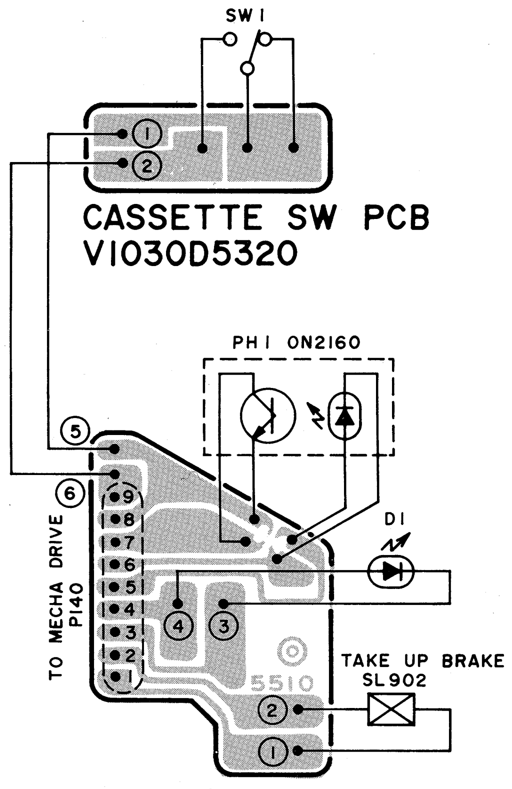
SELECTOR PCB V1027C5040 EK

WARNING: ⚠ INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

AVERTISSEMENT: ⚠ IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDEES PAR LE FABRICANT

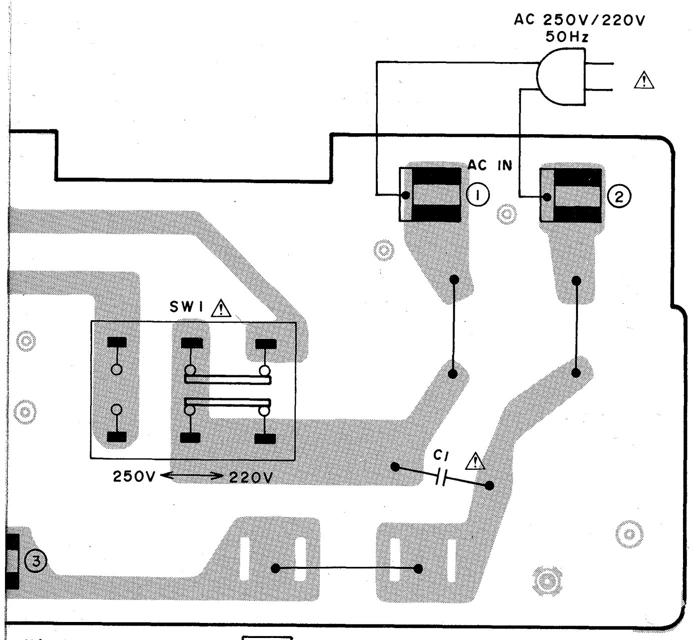

AC 220V
50Hz
T901
V1027EO
WHT
220V
0V
RED
C1
AKAI

SELECTOR PCB V1027C5030 EO.EO-G

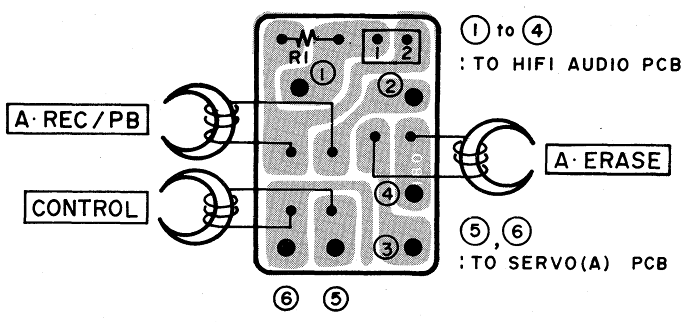

SW1
PH1 ON2160
D1
TO MECHA DRIVE
P140
TAKE UP BRAKE
SL902
5510

CASSETTE SW PCB
V1030D5320

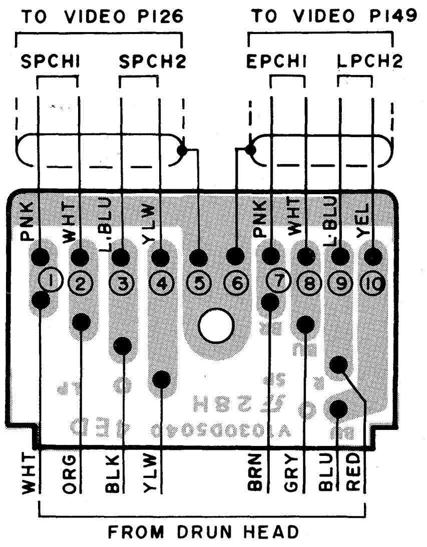
SENSOR (T) PCB
V1030D5510


AC 250V/220V
50Hz
AC IN
①
②
SW1
250V
220V
C1
③

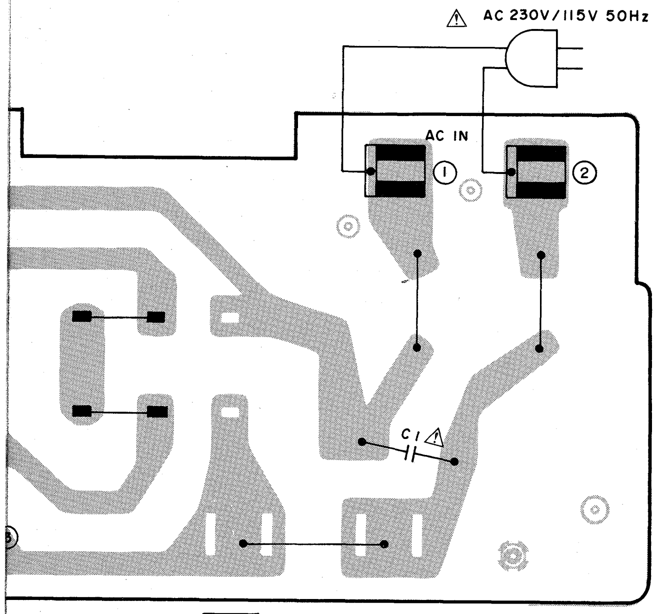
V1027C5042 ES


R1
①
②
③
④
A·REC/PB
CONTROL
A·ERASE
① to ④ : TO HIFI AUDIO PCB
⑤,⑥ : TO SERVO(A) PCB
⑥ ⑤

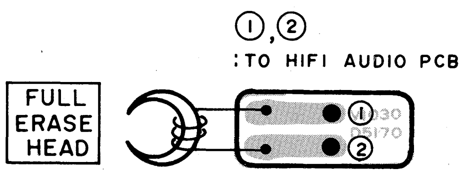
A/C HEAD PCB
V1030D5180


TO VIDEO P126
TO VIDEO P149
SPCH1
SPCH2
EPCH1
LPCH2
PNK
WHT
L.BLU
YLW
PNK
WHT
L.BLU
YEL
① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩
WHT
ORG
BLK
YLW
BRN
GRY
BLU
RED
FROM DRUN HEAD

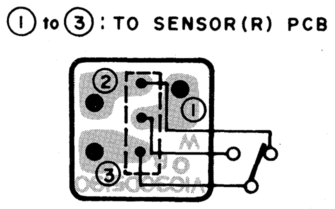
JUNCTION PCB
V1030D5040(4ED)


AC 230V/115V 50Hz
AC IN
①
②
C1

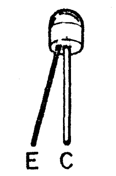
/1027C5033 EZ


①,②
:TO HIFI AUDIO PCB
FULL
ERASE
HEAD
①
②

FULL ERASE PCB
V1030D5170

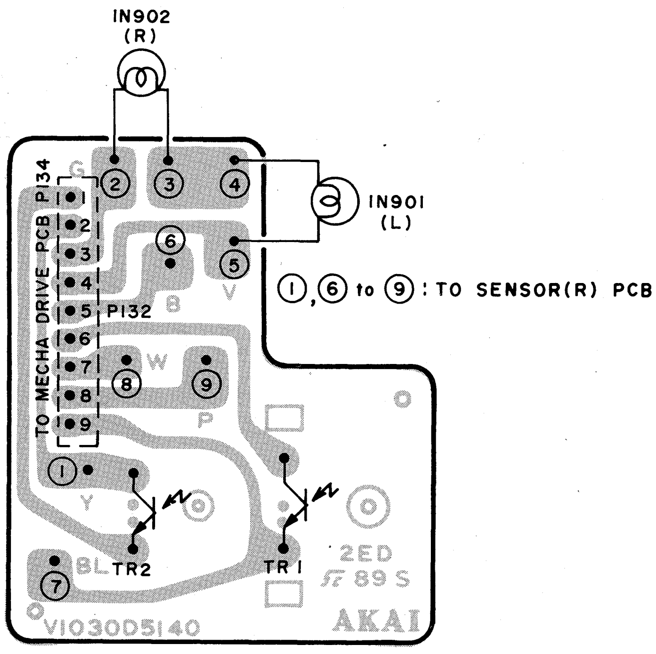

① to ③ : TO SENSOR(R) PCB
①
②
③

SWITCH (EJ) PCB
V1030D5190



PN202S

TR1,2---PN202S

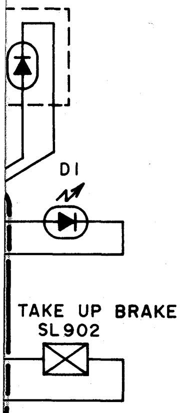

IN902
(R)
IN901
(L)
P134
TO MECHA DRIVE PCB
P132
1
2
3
4
5
6
7
8
9
①
②
③
④
⑤
⑥
⑦
⑧
⑨
①,⑥ to ⑨ : TO SENSOR(R) PCB
TR2
TR1
2ED
89 S
V1030D5140
AKAI

SENSOR (L) PCB
V1030D5140 (2ED)

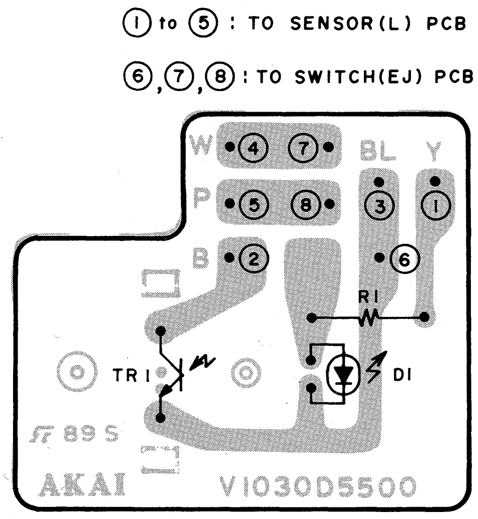
AL COMPONENTS FOR CONTINUED SAFETY,
COMPONENTS ONLY WITH MANUFACTURER'S

MPOSANTS CRITIQUES DE SÉCURITÉ.
DE SÉCURITÉ DE L'APPAREIL,
ÈCES RECOMMANDEES PAR LE FABRICANT

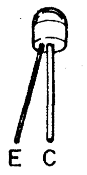
PCB


160
D1
TAKE UP BRAKE
SL902

B

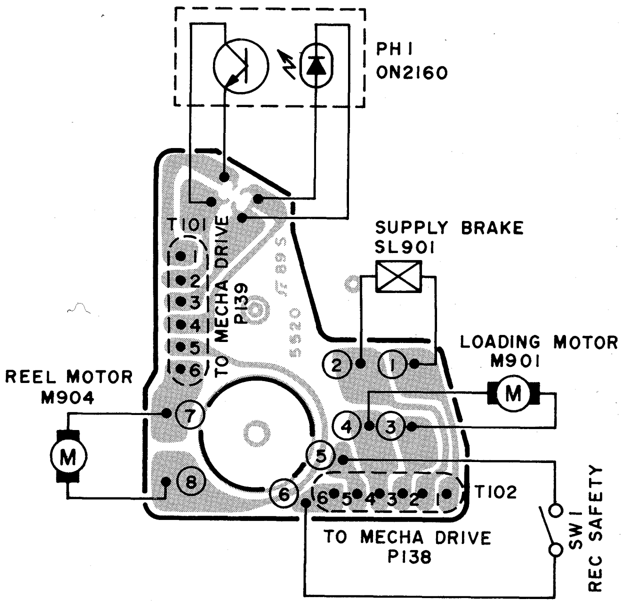

① to ⑤ : TO SENSOR(L) PCB
⑥,⑦,⑧ : TO SWITCH(EJ) PCB
①
②
③
④
⑤
⑥
⑦
⑧
TR1
R1
D1
89 S
AKAI
V1030D5500

SENSOR (R) PCB V1030D5500

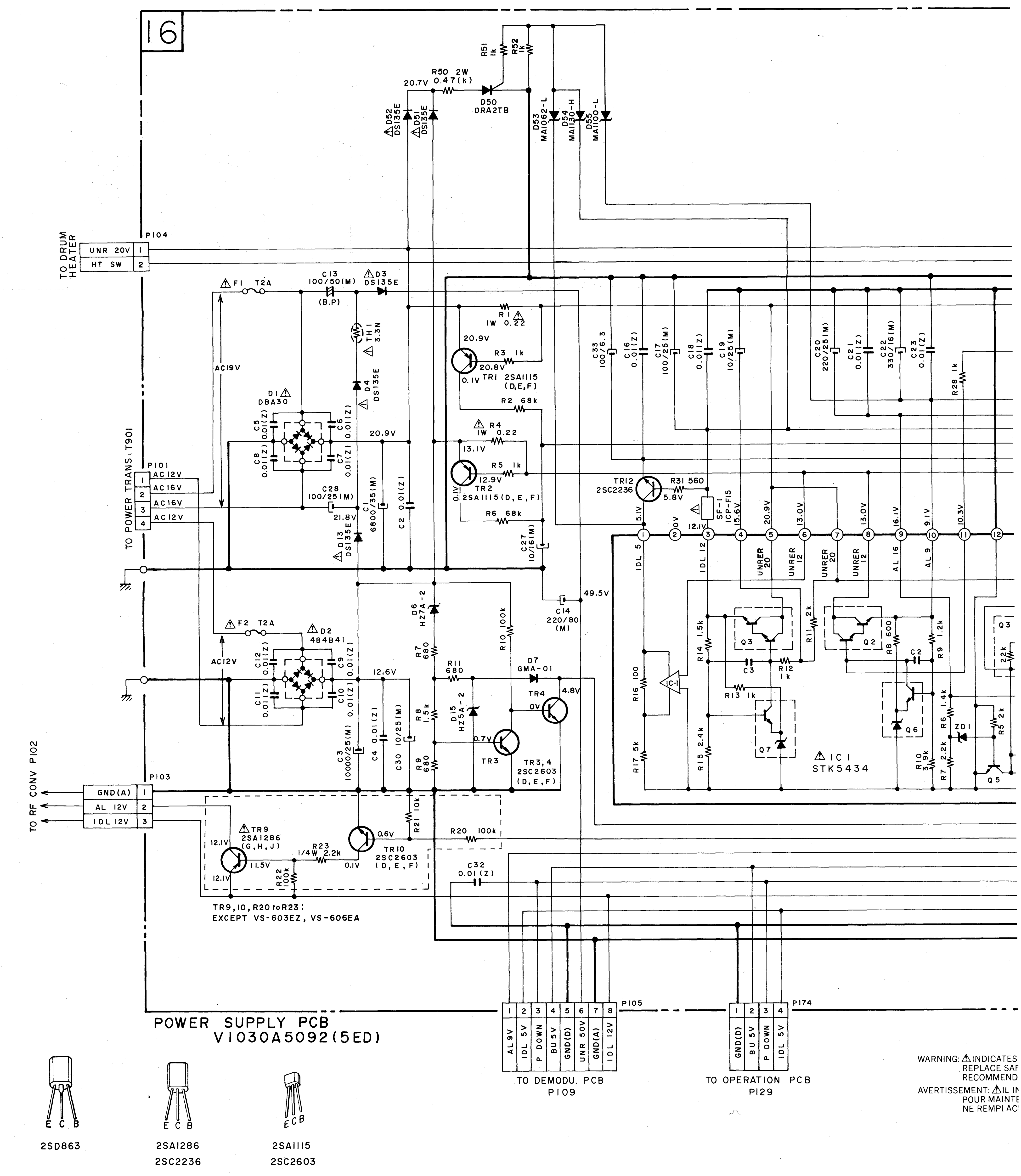


PN202S

TR1---PN202S

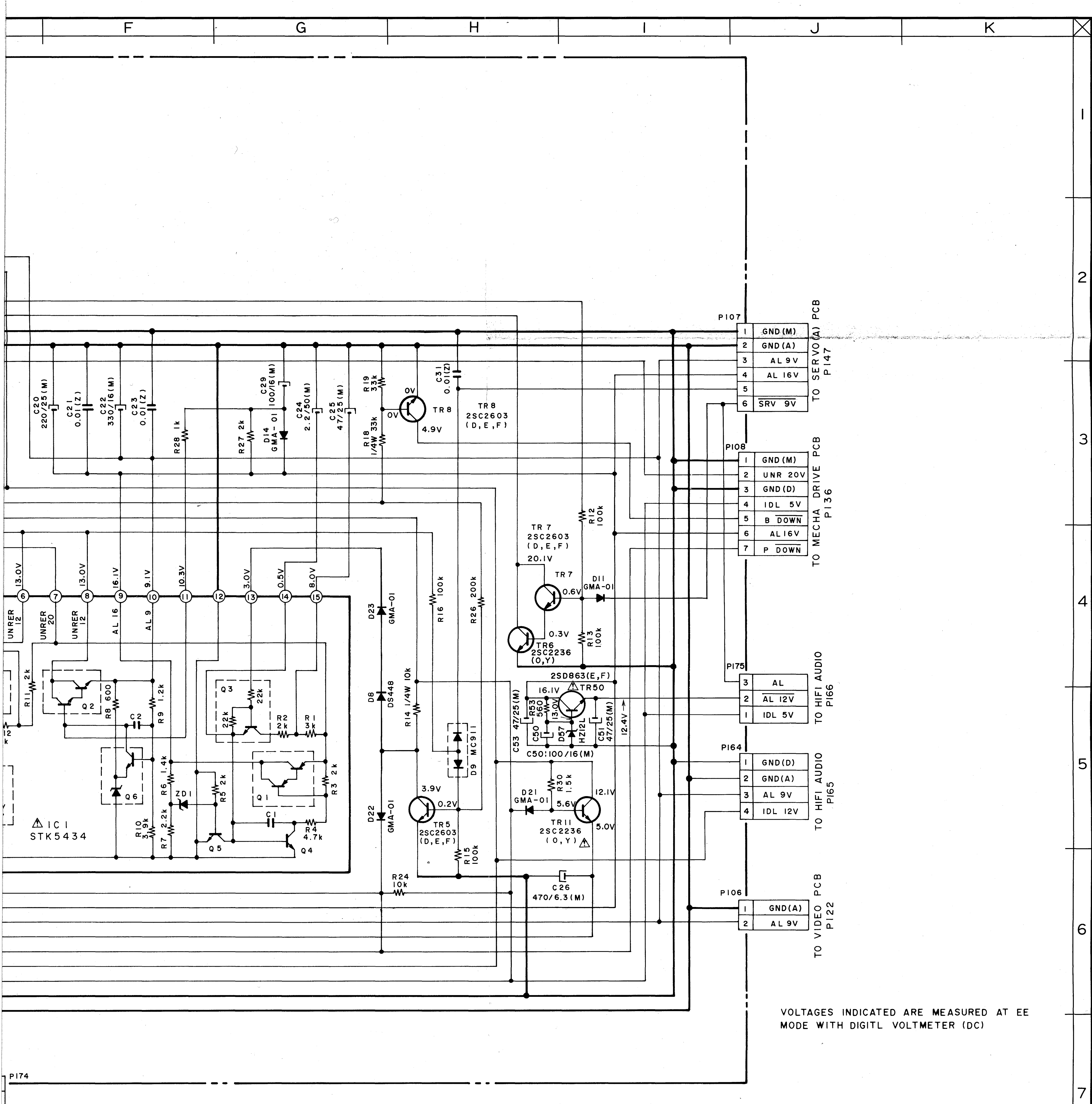

PH1
ON2160
T101
TO MECHA DRIVE
P139
SUPPLY BRAKE
SL901
LOADING MOTOR
M901
REEL MOTOR
M904
M
①
②
③
④
⑤
⑥
⑦
⑧
T102
TO MECHA DRIVE
P138
SW1
REC SAFETY

SENSOR (S) PCB
V1030D5520


16
A
B
C
D
E
F
1
2
3
4
5
6
7
8
TO DRUM HEATER
UNR 20V
HT SW
P104
R51 1k
R52 1k
R50 2W 0.47(k)
20.7V
D50 DRA2TB
D52 DS135E
D51 DS135E
D53 MA1062-L
D54 MA1130-H
D55 MA1100-L
F1 T2A
C13 100/50(M) (B.P)
D3 DS135E
TH1 3.3N
D4 DS135E
AC19V
D1 DBA30
C5 0.01(Z)
C6 0.01(Z)
C7 0.01(Z)
C8 0.01(Z)
C28 100/25(M)
21.8V
C1 6800/35(M)
C2 0.01(Z)
20.9V
D13 DS135E
TO POWER TRANS (T901)
P101
AC12V
AC16V
AC16V
AC12V
R1 1W 0.22
20.9V
R3 1k
20.8V
0.1V
TR1 2SA1115 (D,E,F)
R2 68k
R4 1W 0.22
13.1V
R5 1k
12.9V
0.1V
TR2 2SA1115(D,E,F)
R6 68k
C27 10/16(M)
C14 220/80 (M)
49.5V
C33 100/6.3
C16 0.01(Z)
C17 100/25(M)
C18 0.01(Z)
C19 10/25(M)
C20 220/25(M)
C21 0.01(Z)
C22 330/16(M)
C23 0.01(Z)
R28 1k
TR12 2SC2236
R31 560
5.8V
5.1V
SF-1 ICP-F15
15.6V
12.1V
0V
20.9V
13.0V
13.0V
16.1V
9.1V
10.3V
IDL 5
IDL 12
UNRER 20
UNRER 12
UNRER 20
UNRER 12
AL 16
AL 9
F2 T2A
D2 4B4B41
AC12V
C12 0.01(Z)
C9 0.01(Z)
C11 0.01(Z)
C10 0.01(Z)
12.6V
C3 10000/25(M)
C4 0.01(Z)
C30 10/25(M)
D6 HZ7A-2
R7 680
R10 100k
R11 680
D7 GMA-01
TR4
4.8V
0V
R8 1.5k
D15 HZ5A-2
0.7V
TR3
TR3,4 2SC2603 (D,E,F)
R9 680
R14 1.5k
R16 100
R17 5k
IC-1
R15 2.4k
Q3
C3
R12 1k
R13 1k
Q7
R11 2k
Q2
R8 600
C2
R9 1.2k
Q6
R6 1.4k
R10 3.9k
R7 2.2k
ZD1
R5 2k
Q3
2.2k
Q5
IC1 STK5434
TO RF CONV P102
P103
GND(A)
AL 12V
IDL 12V
TR9 2SA1286 (G,H,J)
12.1V
11.5V
12.1V
R22 100k
R23 1/4W 2.2k
0.1V
TR10 2SC2603 (D,E,F)
0.6V
R21 10k
R20 100k
C32 0.01(Z)
TR9,10, R20 to R23: EXCEPT VS-603EZ, VS-606EA
POWER SUPPLY PCB
V1030A5092(5ED)
P105
AL 9V
IDL 5V
P DOWN
BU 5V
GND(D)
UNR 50V
GND(A)
IDL 12V
TO DEMODU. PCB P109
P174
GND(D)
BU 5V
P DOWN
IDL 5V
TO OPERATION PCB P129
E C B
2SD863
E C B
2SA1286
2SC2236
E C B
2SA1115
2SC2603
001649

WARNING: ⚠INDICATES
REPLACE SAF
RECOMMEND

AVERTISSEMENT: ⚠IL IN
POUR MAINTE
NE REMPLAC


F
G
H
I
J
K
1
2
3
4
5
6
7
P107
1 GND(M)
2 GND(A)
3 AL 9V
4 AL 16V
5
6 SRV 9V
TO SERVO(A) PCB P147
P108
1 GND(M)
2 UNR 20V
3 GND(D)
4 IDL 5V
5 B DOWN
6 AL16V
7 P DOWN
TO MECHA DRIVE PCB P136
P175
3 AL
2 AL 12V
1 IDL 5V
TO HIFI AUDIO P166
P164
1 GND(D)
2 GND(A)
3 AL 9V
4 IDL 12V
TO HIFI AUDIO P165
P106
1 GND(A)
2 AL 9V
TO VIDEO PCB P122
C20 220/25(M)
C21 0.01(Z)
C22 330/16(M)
C23 0.01(Z)
R28 1k
R27 2k
C29 100/16(M)
D14 GMA-01
C24 2.2/50(M)
C25 47/25(M)
R19 33k
R18 1/4W 33k
C31 0.01(Z)
TR8
2SC2603 (D,E,F)
0V
0V
4.9V
13.0V
13.0V
16.1V
9.1V
10.3V
3.0V
0.5V
8.0V
UNRER 12
UNRER 20
UNRER 12
AL 16
AL 9
R11 2k
R8 600
R9 1.2k
C2
Q2
Q3
22k
22k
R2 2k
R1 3k
Q6
R6 1.4k
R5 2k
ZD1
Q1
R3 2k
C1
R4 4.7k
R10 3.9k
R7 2.2k
Q5
Q4
IC1 STK5434
12 k
D23 GMA-01
D8 DS448
R14 1/4W 10k
D22 GMA-01
R16 100k
R26 200k
D9 MC911
3.9V
0.2V
TR5 2SC2603 (D,E,F)
R15 100k
R24 10k
C26 470/6.3(M)
TR7 2SC2603 (D,E,F)
20.1V
TR7
0.6V
D11 GMA-01
R12 100k
0.3V
TR6 2SC2236 (O,Y)
R13 100k
2SD863(E,F)
TR50
16.1V
R53 560
13.0V
C50
D57 HZ12L
C51 47/25(M)
C53 47/25(M)
12.4V
C50:100/16(M)
D21 GMA-01
R30 1.5k
5.6V
12.1V
TR11 2SC2236 (O,Y)
5.0V
P174
PCB

VOLTAGES INDICATED ARE MEASURED AT EE MODE WITH DIGITL VOLTMETER (DC)

WARNING: ⚠INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

AVERTISSEMENT: ⚠IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDEES PAR LE FABRICANT

NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS 1/6W(J)
ALL CAPACITORS IN μF 50 WV(J)

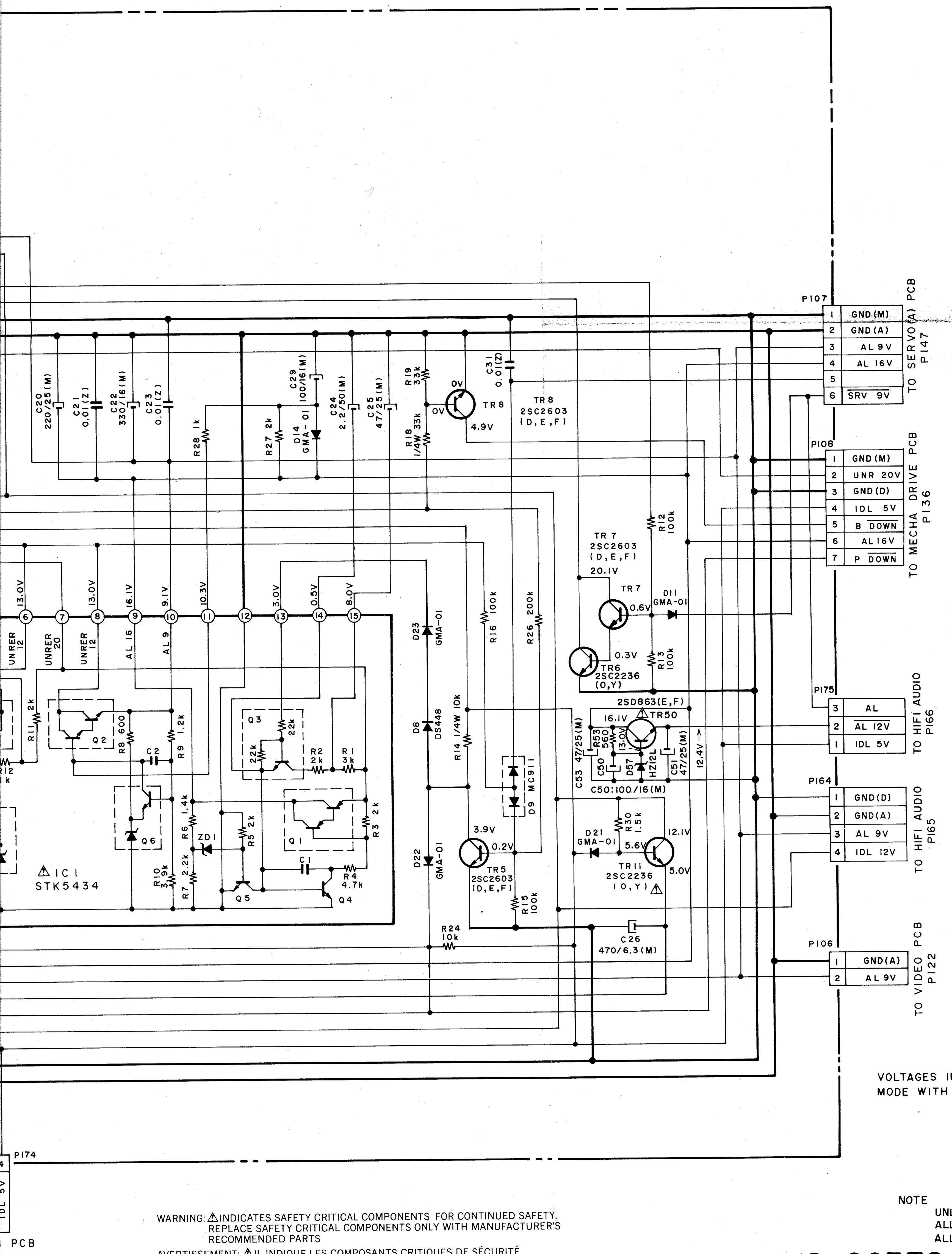
VS-603EG/EK/ES/EZ
VS-606EA/EO
VS-607EO-G
POWER SUPPLY
SCHEMATIC DIAGRAM

NO.20-2 850412D (A2)

2

F G H I J K

8


P107
GND(M)
GND(A)
AL 9V
AL 16V
SRV 9V
TO SERVO(A) PCB P147
P108
GND(M)
UNR 20V
GND(D)
IDL 5V
B DOWN
AL 16V
P DOWN
TO MECHA DRIVE PCB P136
P175
AL
AL 12V
IDL 5V
TO HIFI AUDIO P166
P164
GND(D)
GND(A)
AL 9V
IDL 12V
TO HIFI AUDIO P165
P106
GND(A)
AL 9V
TO VIDEO PCB P122
P174
IDL 5V
PCB
C20 220/25(M)
C21 0.01(Z)
C22 330/16(M)
C23 0.01(Z)
R28 1k
R27 2k
C29 100/16(M)
D14 GMA-01
C24 2.2/50(M)
C25 47/25(M)
R19 33k
R18 1/4W 33k
C31 0.01(Z)
TR8 2SC2603 (D,E,F)
0V
4.9V
R12 100k
TR7 2SC2603 (D,E,F)
20.1V
0.6V
D11 GMA-01
0.3V
R13 100k
TR6 2SC2236 (O,Y)
13.0V
16.1V
9.1V
10.3V
3.0V
0.5V
8.0V
UNRER 12
UNRER 20
AL 16
AL 9
Q2
R8 600
C2
R9 1.2k
R11 2k
R12 1k
Q6
Q3
22k
R2 2k
R1 3k
R6 1.4k
ZD1
R5 2k
Q1
R3 2k
C1
R4 4.7k
R10 3.9k
R7 2.2k
Q5
Q4
IC1 STK5434
D23 GMA-01
D6 DS448
D22 GMA-01
R16 100k
R26 200k
R14 1/4W 10k
D9 MC911
3.9V
0.2V
TR5 2SC2603 (D,E,F)
R15 100k
R24 10k
2SD863(E,F)
TR50
16.1V
13.0V
C53 47/25(M)
R53 560
C50
D57
HZ12L
C51 47/25(M)
12.4V
C50:100/16(M)
R30 1.5k
D21 GMA-01
5.6V
12.1V
5.0V
TR11 2SC2236 (O,Y)
C26 470/6.3(M)

VOLTAGES INDICATED ARE MEASURED AT EE MODE WITH DIGITL VOLTMETER (DC)

WARNING: ⚠INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

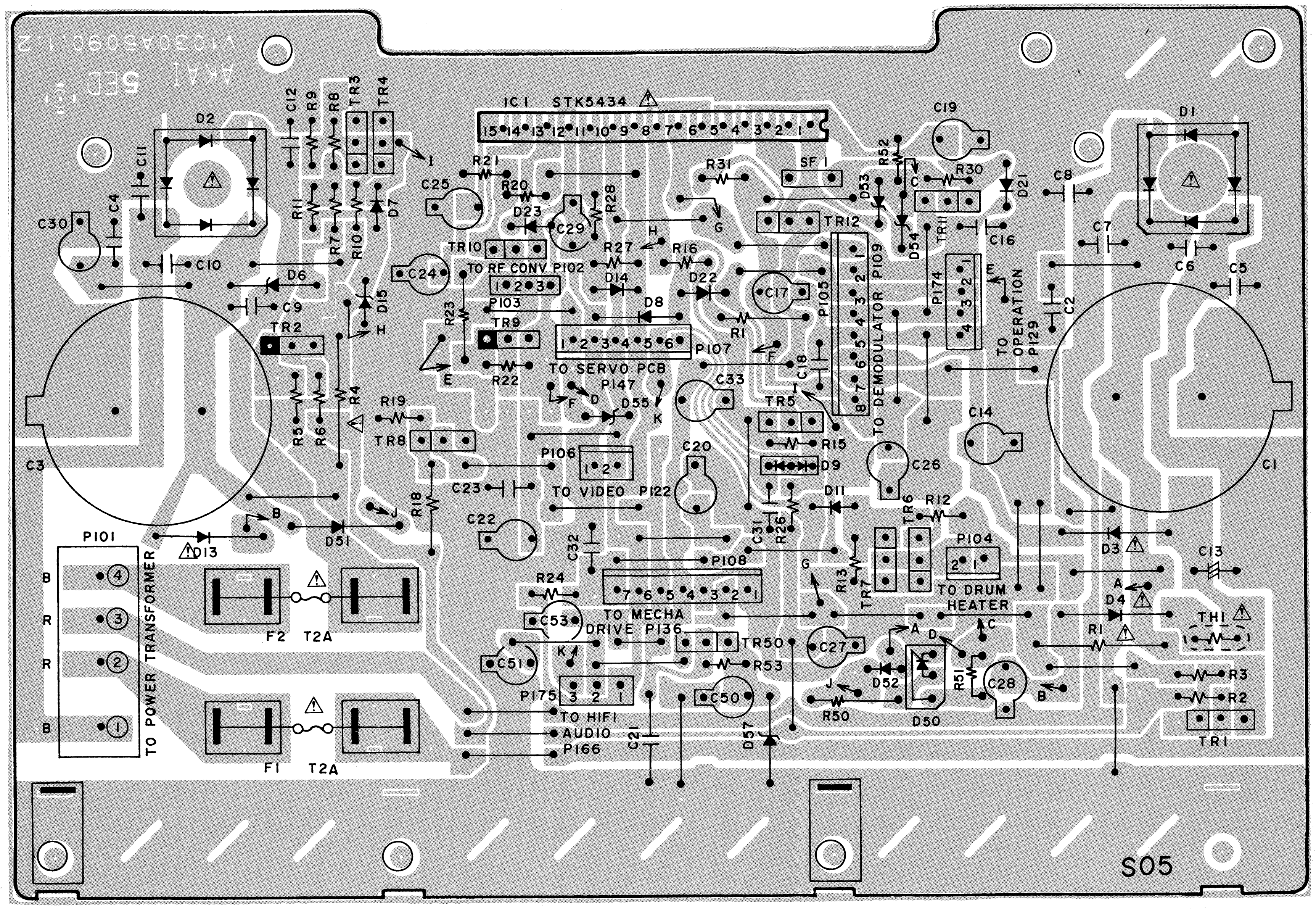
AVERTISSEMENT: ⚠IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDEES PAR LE FABRICANT

NOTE

UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS 1/6W(J)
ALL CAPACITORS IN μF 50 WV(J)

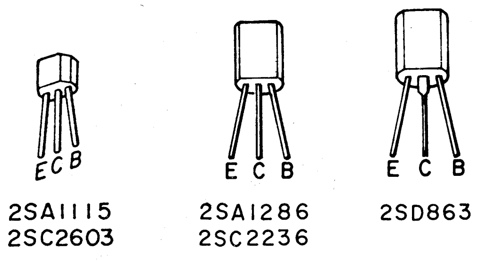
VS-603EG/EK/ES/EZ
VS-606EA/EO
VS-607EO-G
POWER SUPPLY SCHEMATIC DIAGRAM

NO.20-2 850412D (A2)
2


V1030A5090.1.2
AKAI 5ED
IC1 STK5434
15 14 13 12 11 10 9 8 7 6 5 4 3 2 1
D1
D2
C3
C1
C4
C5
C6
C7
C8
C9
C10
C11
C12
C13
C14
C16
C17
C18
C19
C20
C21
C22
C23
C24
C25
C26
C27
C28
C29
C30
C31
C32
C33
C50
C51
C53
D3
D4
D6
D7
D8
D9
D11
D13
D14
D15
D21
D22
D23
D50
D51
D52
D53
D54
D55
D57
R1
R2
R3
R4
R5
R6
R7
R8
R9
R10
R11
R12
R13
R15
R16
R18
R19
R20
R21
R22
R23
R24
R26
R27
R28
R30
R31
R50
R51
R52
R53
TR1
TR2
TR3
TR4
TR5
TR6
TR7
TR8
TR9
TR10
TR11
TR12
TR50
SF1
TH1
P101
B
R
R
B
④
③
②
①
TO POWER TRANSFORMER
F1 T2A
F2 T2A
TO RF CONV P102
P103
TO SERVO PCB P147
P107
TO DEMODULATOR P109
P105
P174
TO OPERATION P129
P106
TO VIDEO P122
P108
TO MECHA DRIVE P136
P104
TO DRUM HEATER
P175
TO HIFI AUDIO P166
S05

POWER SUPPLY PCB V1030A5092(5ED)

TR1,2 ---------- 2SA1115
TR3,4,5,7,8, ---- 2SC2603
TR6,11,12 ------ 2SC2236
TR9 ----------- 2SA1286
TR50 ---------- 2SD863

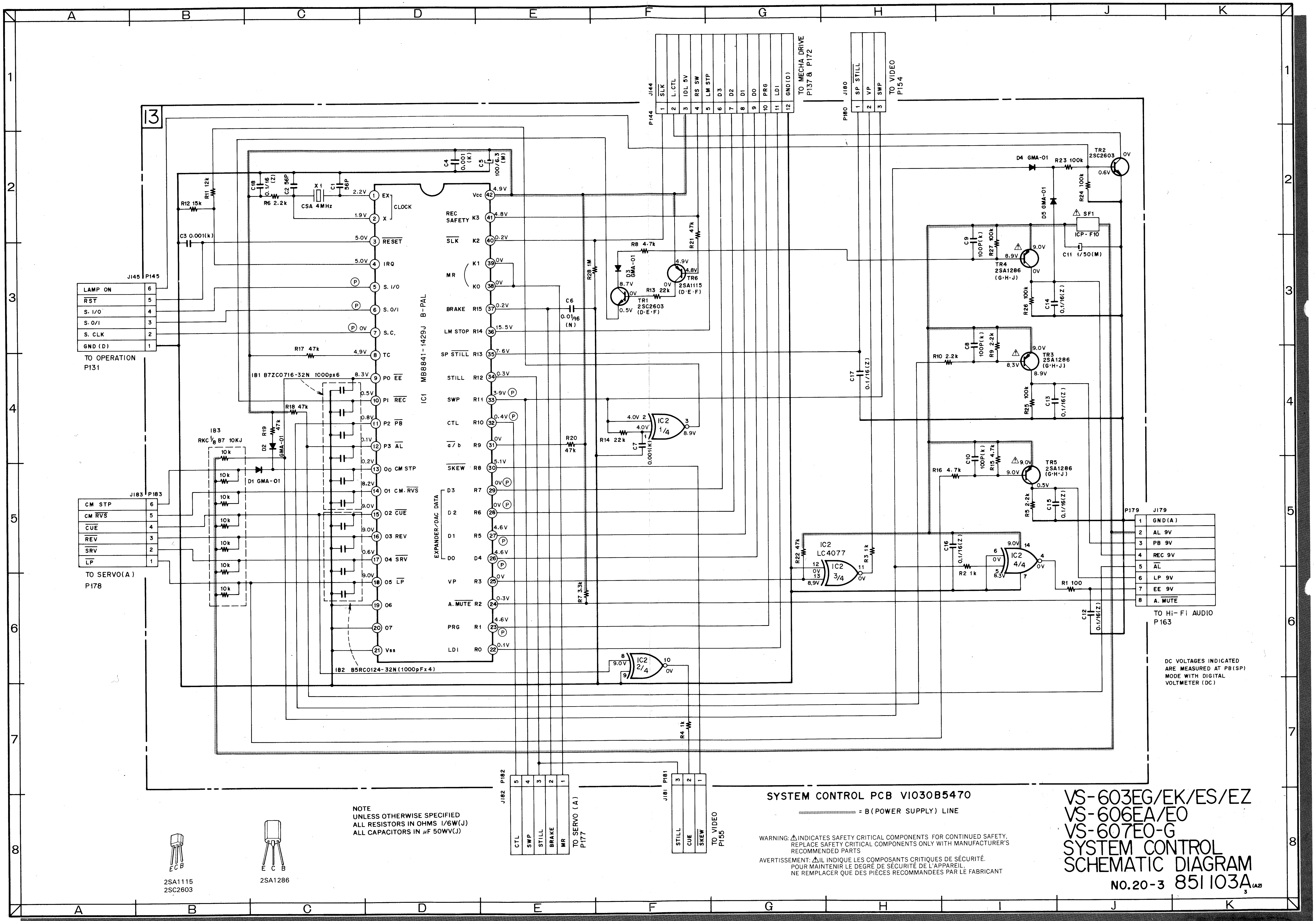

ECB
E C B
E C B
2SA1115
2SC2603
2SA1286
2SC2236
2SD863

■●● = PNP TRANSISTOR
B

●●● = NPN TRANSISTOR
B

WARNING: ⚠ INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

AVERTISSEMENT: ⚠ IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDEES PAR LE FABRICANT


13
IC1 MB8841-1429J B-PAL
IC2 LC4077
J145 P145
LAMP ON
RST
S. I/O
S. 0/I
S. CLK
GND (D)
TO OPERATION P131
J183 P183
CM STP
CM RVS
CUE
REV
SRV
LP
TO SERVO(A) P178
J144 P144
SLK
L. CTL
IDL 5V
RS SW
LM STP
D3
D2
D1
D0
PRG
LDI
GND (D)
TO MECHA DRIVE P137 & P172
J180 P180
SP STILL
VP
SWP
TO VIDEO P154
P179 J179
GND (A)
AL 9V
PB 9V
REC 9V
AL
LP 9V
EE 9V
A. MUTE
TO Hi-Fi AUDIO P163
J182 P182
CTL
SWP
STILL
BRAKE
MR
TO SERVO (A) P177
J181 P181
STILL
CUE
SKEW
TO VIDEO P155
CSA 4MHz
CLOCK
EX
X
RESET
IRQ
S. I/O
S. 0/I
S.C.
TC
P0 EE
P1 REC
P2 PB
P3 AL
O0 CM STP
O1 CM. RVS
O2 CUE
O3 REV
O4 SRV
O5 LP
O6
O7
Vss
Vcc
REC SAFETY K3
SLK K2
MR K1
K0
BRAKE R15
LM STOP R14
SP STILL R13
STILL R12
SWP R11
CTL R10
a/b R9
SKEW R8
D3 R7
D2 R6
D1 R5
D0 D4
VP R3
A. MUTE R2
PRG R1
LDI R0
EXPANDER/DAC DATA
IB1 B7ZC0716-32N 1000pX6
IB2 B5RC0124-32N (1000pFX4)
IB3 RKC 1/8 B7 10KJ
D1 GMA-01
D2 GMA-01
D3 GMA-01
D4 GMA-01
D5 GMA-01
TR1 2SC2603 (D·E·F)
TR2 2SC2603
TR3 2SA1286 (G·H·J)
TR4 2SA1286 (G·H·J)
TR5 2SA1286 (G·H·J)
TR6 2SA1115 (D·E·F)
⚠ SF1 ICP-F10
C11 1/50(M)
2SA1115
2SC2603
2SA1286
E C B

NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS 1/6W(J)
ALL CAPACITORS IN μF 50WV(J)

DC VOLTAGES INDICATED
ARE MEASURED AT PB(SP)
MODE WITH DIGITAL
VOLTMETER (DC)

SYSTEM CONTROL PCB V1030B5470

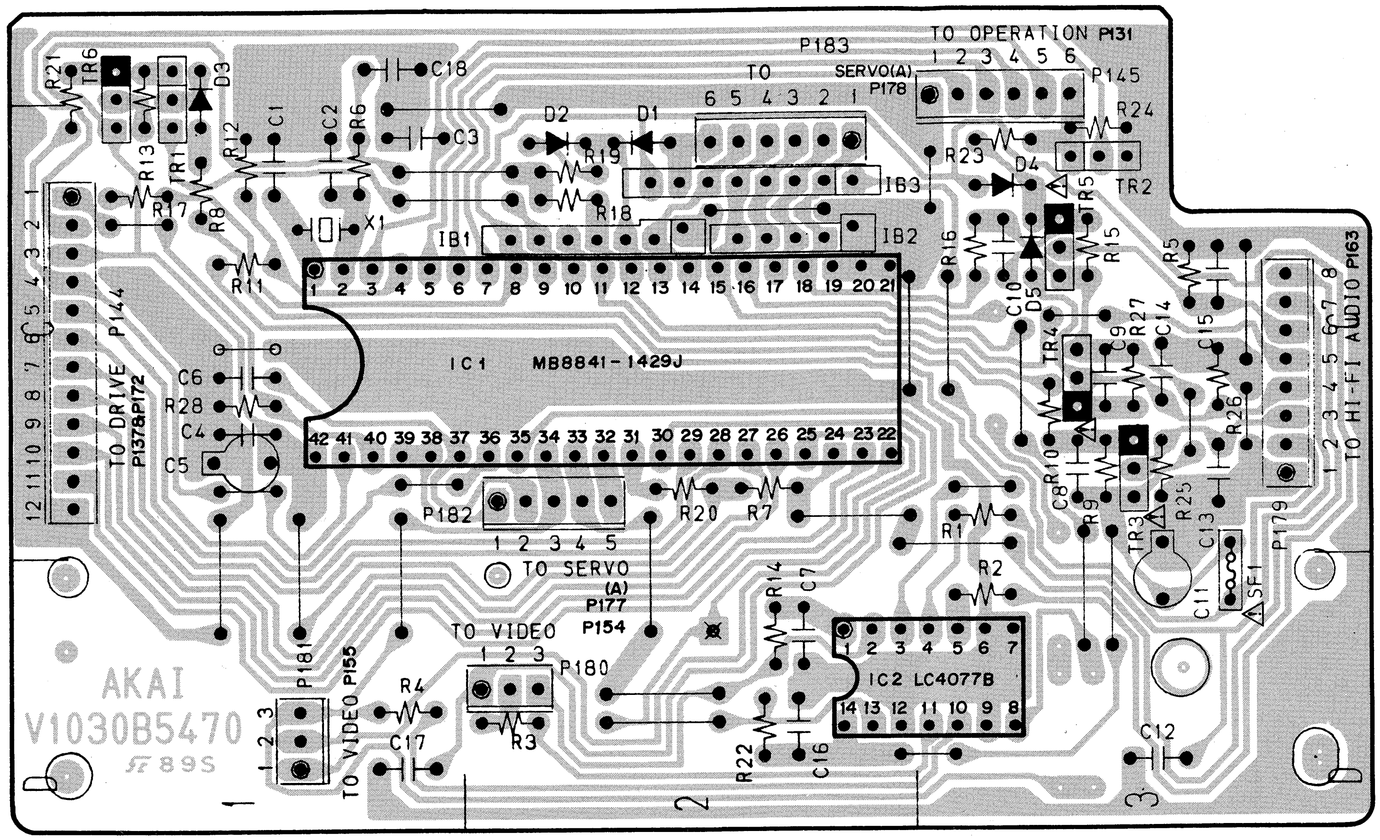
▬ = B(POWER SUPPLY) LINE

WARNING: ⚠ INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY.
REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S
RECOMMENDED PARTS

AVERTISSEMENT: ⚠ IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ.
POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL,
NE REMPLACER QUE DES PIÈCES RECOMMANDÉES PAR LE FABRICANT

VS-603EG/EK/ES/EZ
VS-606EA/EO
VS-607EO-G
SYSTEM CONTROL SCHEMATIC DIAGRAM

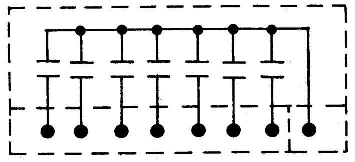
NO.20-3 851103A



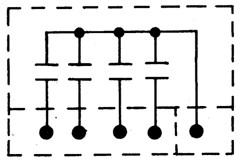
P183
TO OPERATION P131
1 2 3 4 5 6
TO SERVO(A) P178
6 5 4 3 2 1
P145
R24
TR2
R21
TR6
D3
C18
C1
C2
R6
C3
D2
D1
R19
R18
IB3
R23
D4
TR5
R13
TR1
R12
R17
R8
X1
IB1
IB2
R16
R15
R5
R11
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21
C10
D5
TR4
R27
C14
C15
C9
R26
IC1 MB8841-1429J
TO DRIVE P144
P137&P172
C6
R28
C4
C5
42 41 40 39 38 37 36 35 34 33 32 31 30 29 28 27 26 25 24 23 22
R10
C8
R9
TR3
R25
C13
P179
TO HI-FI AUDIO P163
P182
1 2 3 4 5
TO SERVO (A) P177
R20
R7
R1
R2
R14
C7
C11
SF1
P154
TO VIDEO P155
1 2 3
P180
P181
R4
R3
C17
AKAI
V1030B5470
IC2 LC4077B
1 2 3 4 5 6 7
14 13 12 11 10 9 8
R22
C16
C12

SYSCON PCB V1030B5470

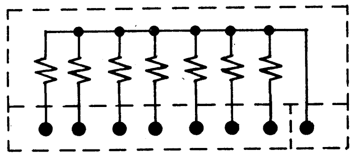
IB1 (B7ZC0716-33N)

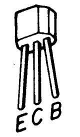


IB2 (B5RC0124-33N)

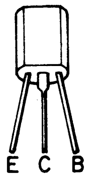


IB3 (RKC1/8B7-10KJ)





2SA1115
2SC2603



2SA1286

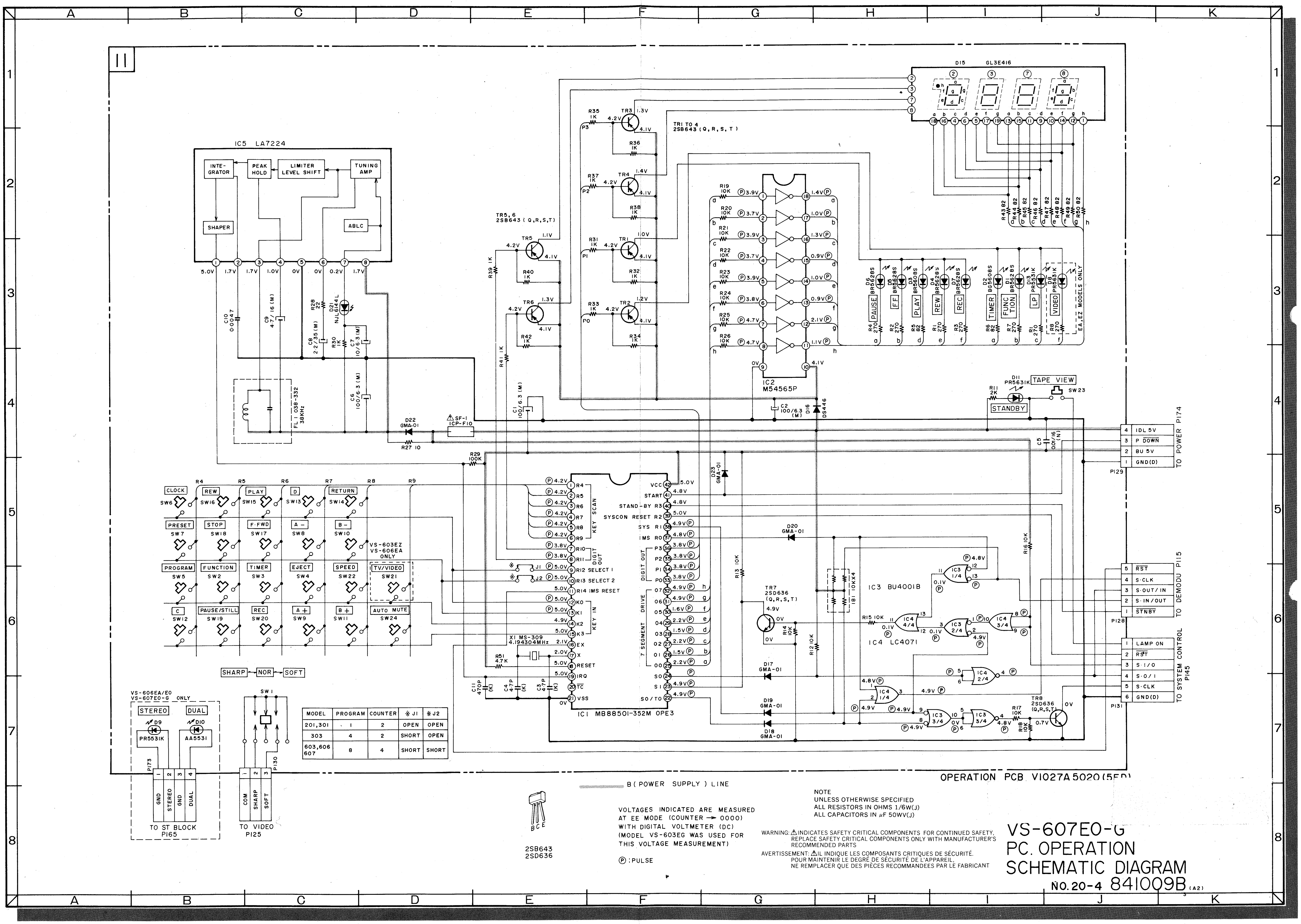
TR1, 2	2SC2603 (D,E,F)
TR 3 to 5	2SA1286 (G,H,J)
TR6	2SA1115 (D,E,F)

■●● = PNP TRANSISTOR

●●● = NPN TRANSISTOR

WARNING: ⚠ INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

AVERTISSEMENT: ⚠ IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDEES PAR LE FABRICANT


11
IC5 LA7224
INTEGRATOR
PEAK HOLD
LIMITER LEVEL SHIFT
TUNING AMP
SHAPER
ABLC
D15 GL3E416
TR1 TO 4 2SB643 (Q,R,S,T)
TR5,6 2SB643 (Q,R,S,T)
IC2 M54565P
IC1 MB88501-352M OPE3
IC3 BU4001B
IC4 LC4071
TR7 2SD636 (Q,R,S,T)
TR8 2SD636 (Q,R,S,T)
X1 MS-309 4.194304MHz
FL1 038-332 38KHz
SF-1 ICP-F10
PAUSE
F.F
PLAY
REW
REC
TIMER
FUNCTION
LP
VIDEO
EA,EZ MODELS ONLY
TAPE VIEW
STANDBY
CLOCK
REW
PLAY
D
RETURN
PRESET
STOP
F·FWD
A−
B−
VS-603EZ VS-606EA ONLY
PROGRAM
FUNCTION
TIMER
EJECT
SPEED
TV/VIDEO
C
PAUSE/STILL
REC
A+
B+
AUTO MUTE
SHARP
NOR
SOFT
VS-606EA/E0 VS-607E0-G ONLY
STEREO
DUAL
D9 PR5531K
D10 AA5531
TO ST BLOCK P165
TO VIDEO P125
TO POWER P174
IDL 5V
P DOWN
BU 5V
GND(D)
TO DEMODU P115
RST
S·CLK
S·OUT/IN
S·IN/OUT
STNBY
TO SYSTEM CONTROL P145
LAMP ON
RST
S·I/O
S·O/I
S·CLK
GND(D)
KEY SCAN
DIGIT OUT
KEY IN
DIGIT OUT
7 SEGMENT DRIVE
2SB643
2SD636
B C E
OPERATION PCB V1027A 5020 (5ED)

MODEL	PROGRAM	COUNTER	※J1	※J2
201,301	1	2	OPEN	OPEN
303	4	2	SHORT	OPEN
603,606 607	8	4	SHORT	SHORT

B (POWER SUPPLY) LINE

VOLTAGES INDICATED ARE MEASURED
AT EE MODE (COUNTER → 0000)
WITH DIGITAL VOLTMETER (DC)
(MODEL VS-603EG WAS USED FOR
THIS VOLTAGE MEASUREMENT)

Ⓟ : PULSE

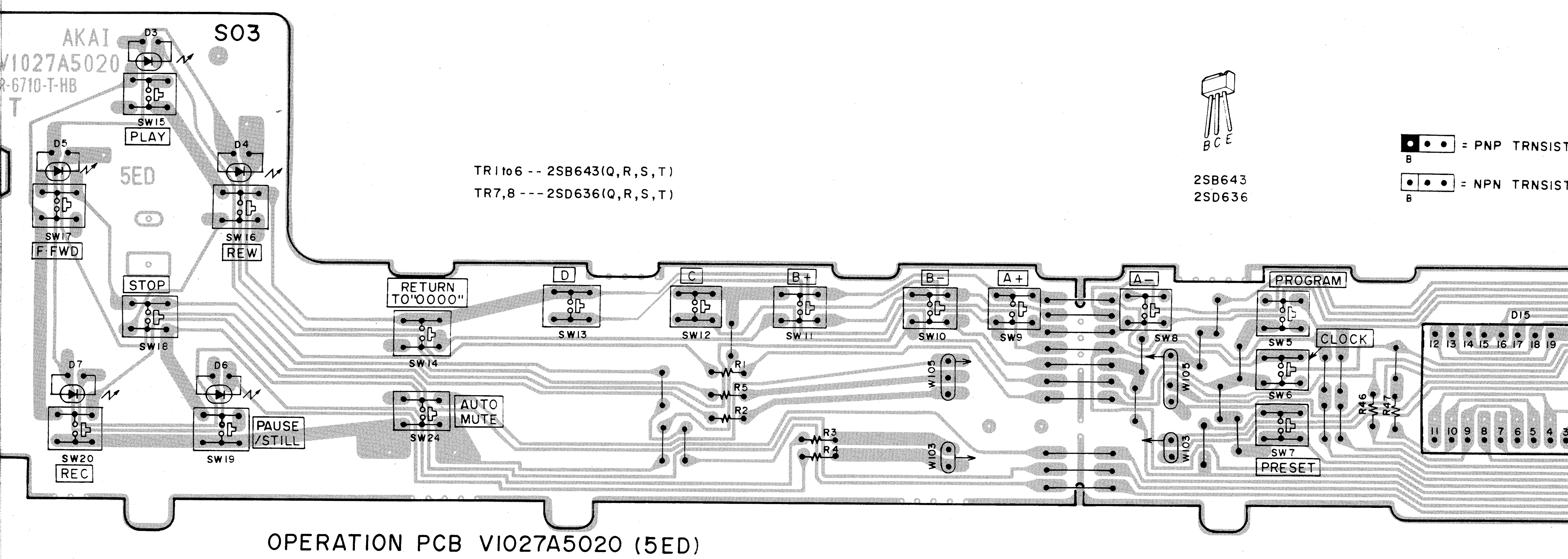
NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS 1/6W(J)
ALL CAPACITORS IN μF 50WV(J)

WARNING: ⚠ INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

AVERTISSEMENT: ⚠ IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDEES PAR LE FABRICANT

VS-607E0-G
PC. OPERATION SCHEMATIC DIAGRAM

No. 20-4 841009B (A2)


AKAI
V1027A5020
R-6710-T-HB
T
S03
5ED
D3
SW15
PLAY
D5
SW17
F·FWD
D4
SW16
REW
STOP
SW18
D7
SW20
REC
D6
SW19
PAUSE /STILL
RETURN TO"0000"
SW14
AUTO MUTE
SW24
D
SW13
C
SW12
B+
SW11
B−
SW10
A+
SW9
A−
SW8
PROGRAM
SW5
CLOCK
SW6
SW7
PRESET
R1
R5
R2
R3
R4
W105
W103
R46
R47
D15
12 13 14 15 16 17 18 19
11 10 9 8 7 6 5 4 3
B C E
2SB643
2SD636
B
= PNP TRNSIST
B
= NPN TRNSIST

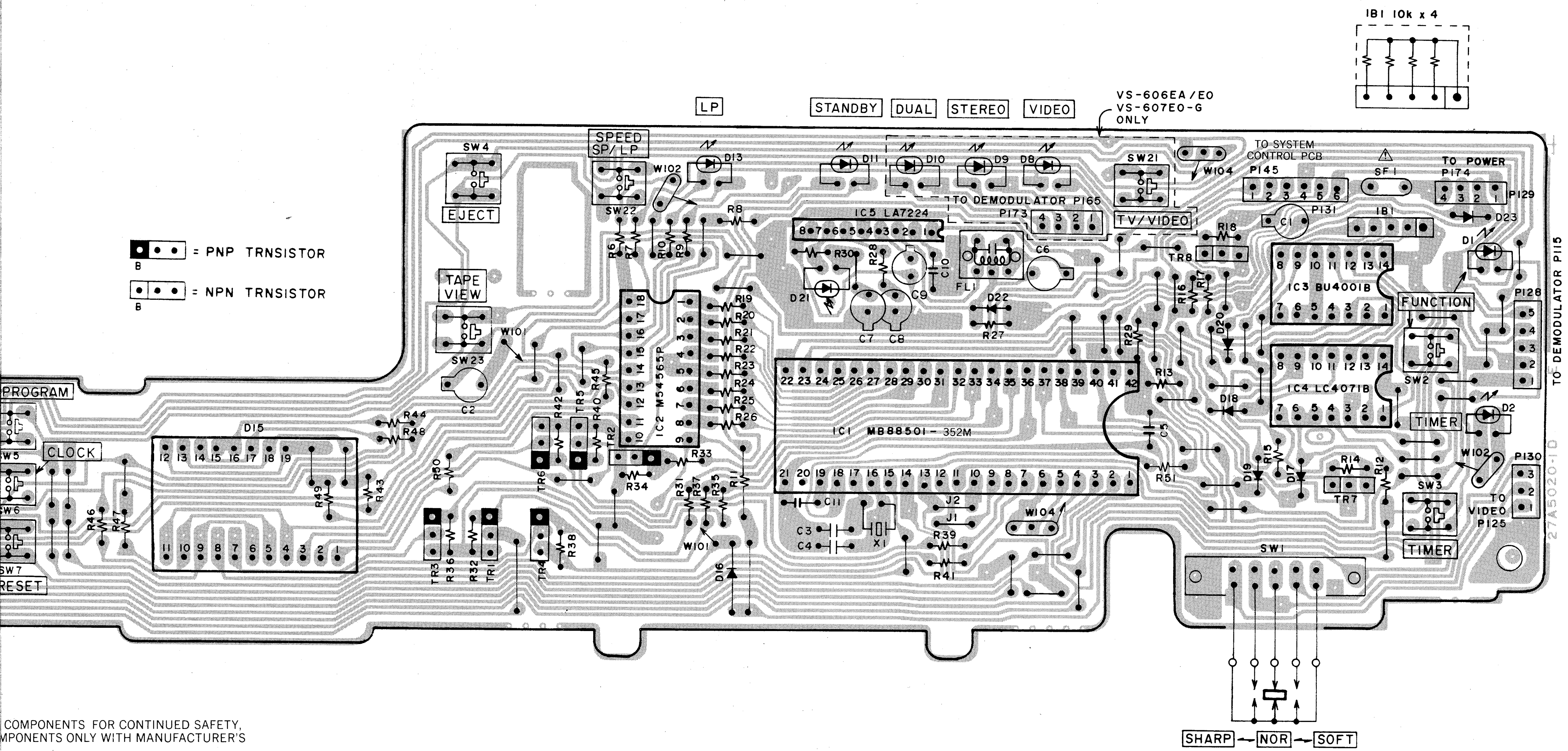
TR1to6 -- 2SB643(Q,R,S,T)

TR7,8 --- 2SD636(Q,R,S,T)

OPERATION PCB V1027A5020 (5ED)

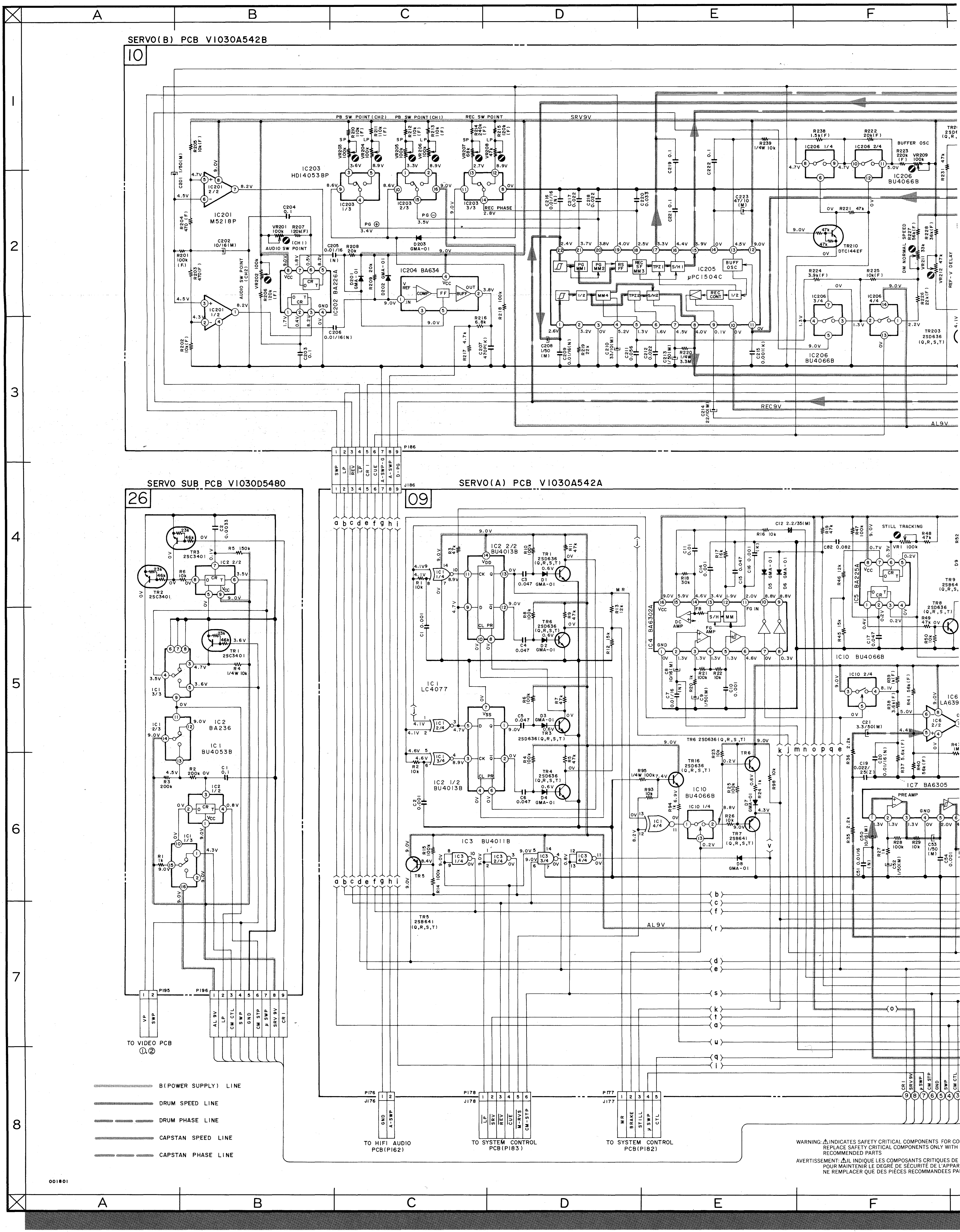
WARNING: ⚠ INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY,
REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S
RECOMMENDED PARTS

AVERTISSEMENT: ⚠ IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ.
POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL,
NE REMPLACER QUE DES PIÈCES RECOMMANDEES PAR LE FABRICANT


■ • • = PNP TRNSISTOR
B
• • • = NPN TRNSISTOR
B
IB1 10k x 4
LP
STANDBY
DUAL
STEREO
VIDEO
VS-606EA/E0
VS-607E0-G
ONLY
SW4
EJECT
SPEED
SP/LP
W102
D13
SW22
D11
D10
D9
D8
SW21
W104
TO SYSTEM
CONTROL PCB
P145
SF1
TO POWER
P174
P129
TO DEMODULATOR P165
P173
TV/VIDEO
R8
IC5 LA7224
R30
R28
C10
FL1
C6
R16
C1
P131
IB1
D23
D1
D21
C7
C8
C9
D22
R27
TR8
R17
R18
IC3 BU4001B
FUNCTION
P128
TO DEMODULATOR P115
TAPE
VIEW
W101
SW23
C2
R19
R20
R21
R22
R23
R24
R25
R26
IC2 M54565P
R45
R40
TR5
R42
TR2
TR6
R33
R34
R29
R13
D20
IC1 MB88501-352M
C5
D18
IC4 LC4071B
SW2
TIMER
D2
PROGRAM
R44
R48
D15
CLOCK
SW5
SW6
SW7
RESET
R43
R49
R50
R46
R47
TR3
R36
R32
TR1
TR4
R38
R31
R37
R35
R11
W101
D16
C11
C3
C4
X1
J2
J1
R39
R41
W104
R51
D19
R15
D17
R14
R12
TR7
W102
P130
TO
VIDEO
P125
SW3
TIMER
SW1
SHARP
NOR
SOFT
27A5020-1-D

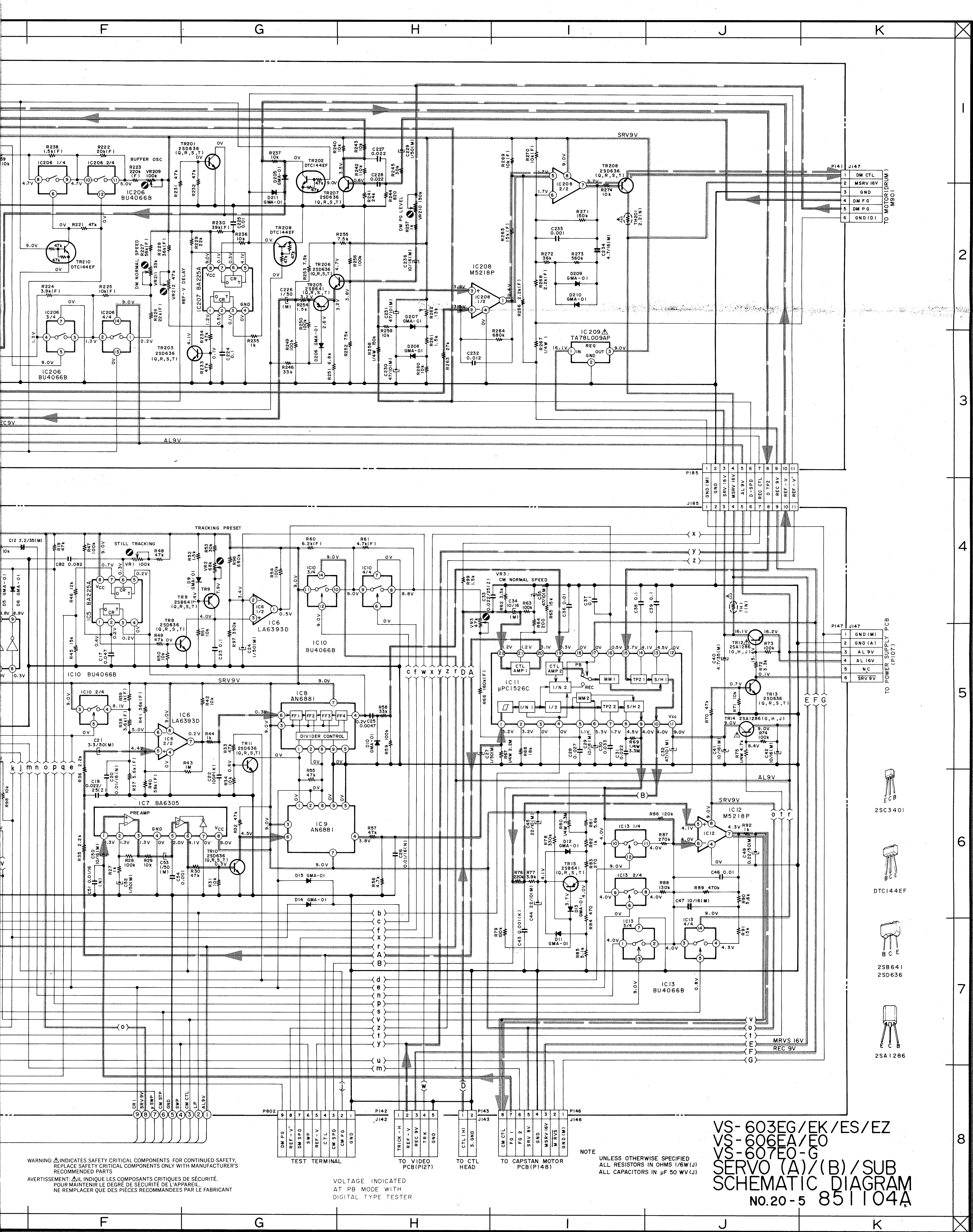
COMPONENTS FOR CONTINUED SAFETY,
MPONENTS ONLY WITH MANUFACTURER'S

OSANTS CRITIQUES DE SÉCURITÉ.
SÉCURITÉ DE L'APPAREIL,
ES RECOMMANDEES PAR LE FABRICANT


A
B
C
D
E
F
1
2
3
4
5
6
7
8
SERVO(B) PCB V1030A542B
10
SRV9V
PB SW POINT(CH2)
PB SW POINT(CH1)
REC SW POINT
IC201 M5218P
IC203 HD14053BP
IC204 BA634
IC202 BA226A
IC205 μPC1504C
IC206 BU4066B
BUFFER OSC
TR210 DTC144EF
TR203 2SD636 (Q,R,S,T)
AUDIO SW POINT
REC PHASE
REC9V
AL9V
DM NORMAL SPEED
REF-V DELAY
P186
SWP
LP
REV
LP
CR1
CUE
A-SWP-G
A-SWP
D-PG
J186
SERVO SUB PCB V1030D5480
26
SERVO(A) PCB V1030A542A
09
IC1 LC4077
IC2 2/2 BU4013B
IC2 1/2 BU4013B
IC3 BU4011B
IC4 BA6302A
IC5 BA225A
IC7 BA6305
IC10 BU4066B
STILL TRACKING
TR1 2SC3401
TR2 2SC3401
TR3 2SC3401
IC2 BA236
IC1 BU4053B
TR5 2SB641 (Q,R,S,T)
TR6 2SD636 (Q,R,S,T)
TR7 2SB641 (Q,R,S,T)
TR8 2SD636 (Q,R,S,T)
P195
VP
SWP
TO VIDEO PCB ①,②
P196
AL 9V
LP
CM CTL
SWP
GND
CM STP
μ SWP
SRV 9V
CR1
P176
J176
GND
A-SWP
TO HIFI AUDIO PCB(P162)
P178
J178
LP
SRV
REV
CUE
M-RVS
CM-STP
TO SYSTEM CONTROL PCB(P183)
P177
J177
MR
BRAKE
STILL
μ SWP
CTL
TO SYSTEM CONTROL PCB(P182)
CR1
SRV 9V
μ SWP
CM STP
GND
SWP
CM CTL
B(POWER SUPPLY) LINE
DRUM SPEED LINE
DRUM PHASE LINE
CAPSTAN SPEED LINE
CAPSTAN PHASE LINE
001801

WARNING: ⚠INDICATES SAFETY CRITICAL COMPONENTS FOR CO
REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH
RECOMMENDED PARTS

AVERTISSEMENT: ⚠IL INDIQUE LES COMPOSANTS CRITIQUES DE
POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAR
NE REMPLACER QUE DES PIÈCES RECOMMANDEES PA


F
G
H
I
J
K
1
2
3
4
5
6
7
8
IC206 BU4066B
BUFFER OSC
IC207 BA225A
REF-V DELAY
DM NORMAL SPEED
TR201 2SD636 (Q,R,S,T)
TR202 DTC144EF
TR203 2SD636 (Q,R,S,T)
TR205 2SB641 (Q,R,S,T)
TR206 2SD636 (Q,R,S,T)
TR207 2SD636 (Q,R,S,T)
TR208 2SD636 (Q,R,S,T)
TR209 DTC144EF
TR210 DTC144EF
DM PG LEVEL
IC208 M5218P
IC209 TA78L009AP
SRV9V
REC9V
AL9V
P141 J147
DM CTL
MSRV 16V
GND
DM FG
DM PG
GND (D)
TO MOTOR(DRUM) M901
P185
J185
GND (M)
GND
SRV 16V
MSRV 16V
AL 9V
D-SPD
REC CTL
D TPZ
REC 9V
REF - V
REF - V'
TRACKING PRESET
STILL TRACKING
IC5 BA225A
IC6 LA6393D
IC7 BA6305
PREAMP
IC8 AN6881
DIVIDER CONTROL
IC9 AN6881
IC10 BU4066B
IC11 μPC1526C
VR3: CM NORMAL SPEED
CTL AMP 1
CTL AMP 2
MM1
MM2
TPZ 1
TPZ 2
S/H 1
S/H 2
IC12 M5218P
IC13 BU4066B
TR9
TR10 2SD636 (Q,R,S,T)
TR11 2SD636 (Q,R,S,T)
TR12 2SA1286 (G,H,J)
TR13 2SD636 (Q,R,S,T)
TR14 2SA1286 (G,H,J)
TR15 2SB641 (Q,R,S,T)
P147 J147
GND (M)
GND (A)
AL 9V
AL 16V
NC
SRV 9V
TO POWER SUPPLY PCB (P107)
MRVS 16V
REC 9V
CR1
SRV 9V
SWP
CM STP
SWP
CM CTL
LP
AL9V
P802
DM PG
REF - V'
DM SPD
SWP
REF - V
C T L
CM SPD
CM FG
GND
TEST TERMINAL
P142 J142
TRICK - H
REF - V
REC 9V
T R K
GND
TO VIDEO PCB(P127)
P143 J143
CTL (H)
S. GND
TO CTL HEAD
P146 J146
CM CTL
FG 1
FG 2
SRV 9V
GND
MSRV 16V
M RVS
GND (M)
TO CAPSTAN MOTOR PCB(P148)
2SC3401
DTC144EF
2SB641
2SD636
2SA1286
E C B
B C E

WARNING: ⚠ INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY. REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

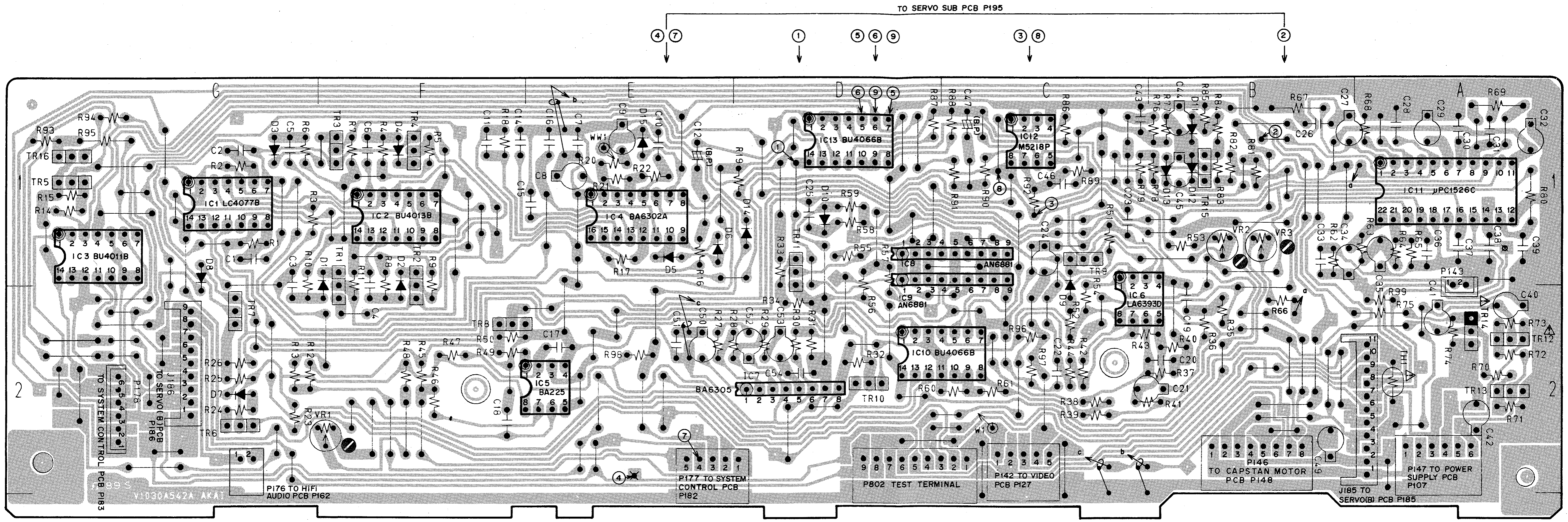
AVERTISSEMENT: ⚠ IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDEES PAR LE FABRICANT

VOLTAGE INDICATED
AT PB MODE WITH
DIGITAL TYPE TESTER

NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS 1/6W(J)
ALL CAPACITORS IN μF 50 WV(J)

VS-603EG/EK/ES/EZ
VS-606EA/EO
VS-607EO-G
SERVO (A)/(B)/SUB
SCHEMATIC DIAGRAM

NO.20-5 851104A


TO SERVO SUB PCB P195
IC1 LC4077B
IC2 BU4013B
IC3 BU4011B
IC4 BA6302A
IC5 BA225
IC6 LA6393D
IC7 BA6305
IC8 AN6881
IC9 AN6881
IC10 BU4066B
IC11 μPC1526C
IC12 M5218P
IC13 BU4066B
TO SYSTEM CONTROL PCB P183
J186 TO SERVO(B) PCB P186
P176 TO HiFi AUDIO PCB P162
P177 TO SYSTEM CONTROL PCB P182
P802 TEST TERMINAL
P142 TO VIDEO PCB P127
P146 TO CAPSTAN MOTOR PCB P148
J185 TO SERVO(B) PCB P185
P147 TO POWER SUPPLY PCB P107
V1030A542A AKAI

SERVO (A) PCB V1030A542A

TR1 to 4,6,8,10,11,13,16 .... 2SD636 (Q,R,S,T)
TR5,7,9,15 .... 2SB641 (Q,R,S,T)
TR12,14 .... 2SA1286 (G,H,J)

SERVO (A) PCB

LOCATION OF COMPONENTS

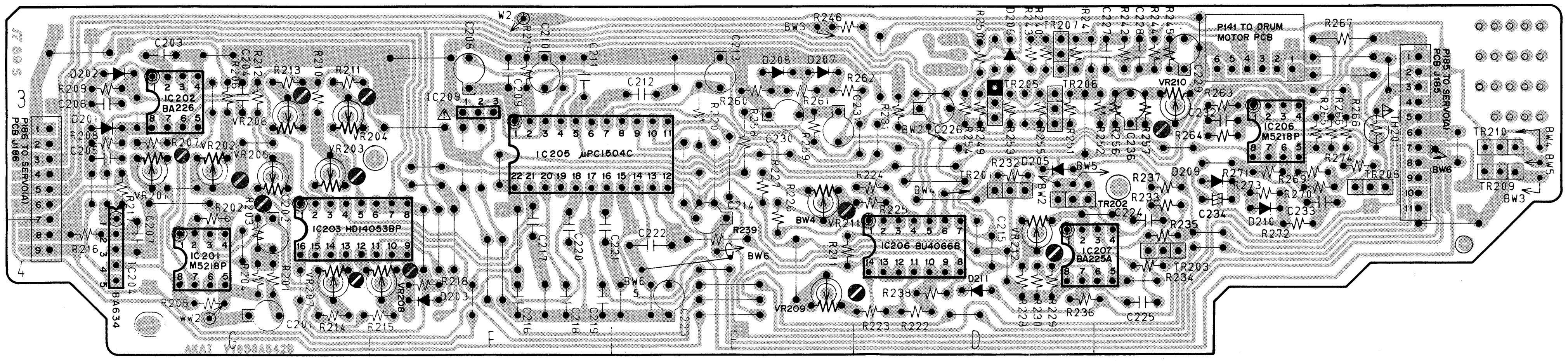
〈IC〉		〈TR〉	
IC1	G1	TR1	F1
IC2	F1	TR2	F1
IC3	G1	TR3	F1
IC4	E1	TR4	F1
IC5	E2	TR5	G1
IC6	C2	TR6	G2
IC7	D2	TR7	G2
IC8	C1	TR8	F2
IC9	C1	TR9	C1
IC10	D2	TR10	D2
IC11	A1	TR11	D1
IC12	C1	TR12	A2
IC13	D1	TR13	A2
		TR14	A2
		TR15	B1
		TR16	G1

〈ADJ POINT〉

VR1 (F2)	STILL TRACKING
VR2 (B1)	TRACKING PRESET
VR3 (B1)	CM SPEED

〈TERMINAL〉

P142	C2
P143	A1
P146	B2
P147	A2
P176	G2
P177	E2
P178	G2
J185	A2
J186	G2
P802	D2
1,5,6,9	D1
2	B1
3,8	C1
4	E2


IC201 M5218P
IC202 BA226
IC203 HD14053BP
IC204 BA634
IC205 μPC1504C
IC206 BU4066B
IC206 M5218P
IC207 BA225A
P186 TO SERVO(A) PCB J186
P141 TO DRUM MOTOR PCB
P185 TO SERVO(A) PCB J185
AKAI V1030A542B

SERVO (B) PCB V1030A542B

TR201,203,206, to 208 .... 2SD636 (Q,R,S,T)
TR202,209,210 .... DTC144EF
TR205 .... 2SB641 (Q,R,S,T)

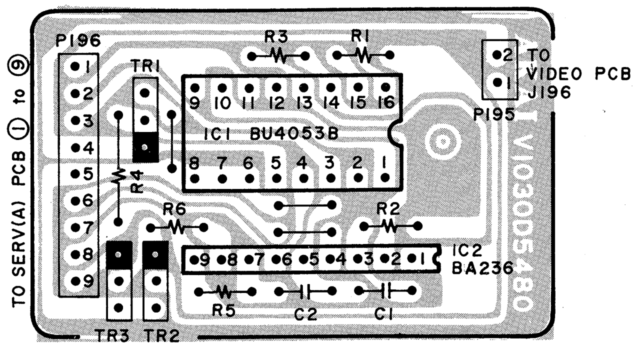
SERVO (B) PCB

LOCATION OF COMPONENTS

〈IC〉		〈TR〉		〈TERMINAL〉	
IC201	G4	TR201	D3	P141	C3
202	G3	202	D3	P185	B3
203	G4	203	C4	P186	G3
204	G4	205	D3		
205	F3	206	D3		
206	D4	207	D3		
207	D4	208	B3		
208	C3	209	B3		
209	F3	210	B3		

〈ADJ POINT〉

VR201 (G3):	AUDIO SWITCHING POINT (CH1)
VR202 (G3):	AUDIO SWITCHING POINT (CH2)
VR203 (G3):	CH2 PB SWITCHING POINT (GP)
VR204 (G3):	CH2 PB SWITCHING POINT (LP)
VR205 (G3):	CH1 PB SWITCHING POINT (SP)
VR206 (G3):	CH1 PB SWITCHING POINT (LP)
VR207 (G4):	REC SWITCHING POINT (SP)
VR208 (G4):	REC SWITCHING POINT (LP)
VR209 (E4):	BUFFER OSC
VR210 (C3):	DM PG LEVEL
VR211 (E3):	DM NORMAL SPEED
VR212 (D4):	REF-V DELAY


P196
TO SERV(A) PCB ① to ⑨
TR1
R3
R1
IC1 BU4053B
R4
R6
R2
IC2 BA236
R5
C2
C1
TR3
TR2
TO VIDEO PCB J196
P195
V1030D5480

SERVO(SUB) PCB V1030D5480

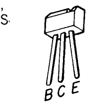
TR1,2,3---2SC3401

■●● = PNP TRANSISTOR

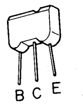
●●● = NPN TRANSISTOR

WARNING: ⚠INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

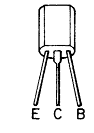
AVERTISSEMENT: ⚠IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDEES PAR LE FABRICANT



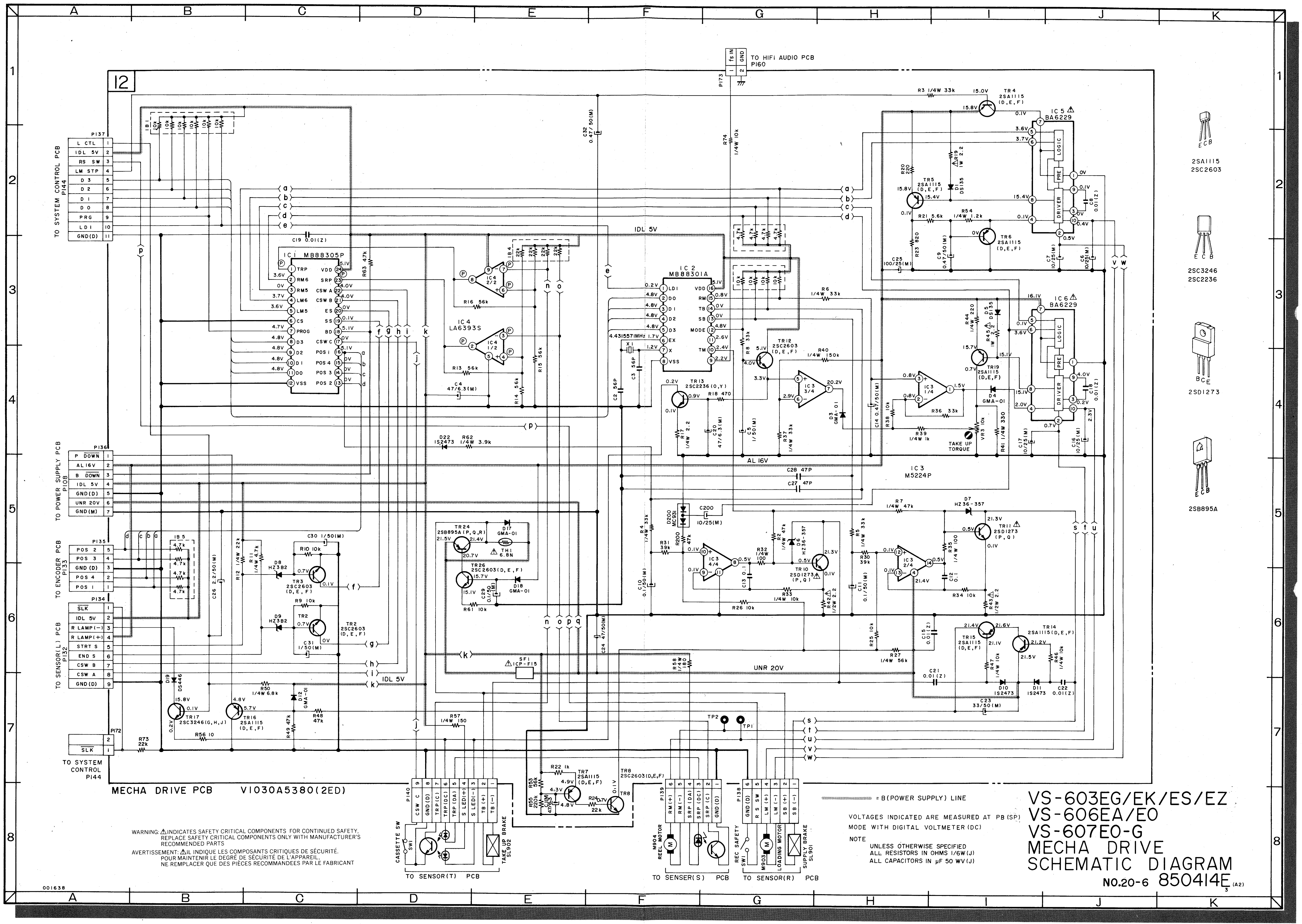
DTC144EF



2SD636
2SB641



2SA1286


12
TO HIFI AUDIO PCB P160
P173
TO SYSTEM CONTROL PCB P144
P137
L CTL
IDL 5V
RS SW
LM STP
D 3
D 2
D 1
D 0
PRG
LD I
GND(D)
IC1 MB88305P
IC2 MB88301A
IC3 M5224P
IC4 LA6393S
IC5 BA6229
IC6 BA6229
IDL 5V
AL 16V
UNR 20V
TO POWER SUPPLY PCB P108
P136
P DOWN
AL 16V
B DOWN
IDL 5V
GND(D)
UNR 20V
GND(M)
TO ENCODER PCB P133
P135
POS 2
POS 3
GND (D)
POS 4
POS 1
TO SENSOR(L) PCB P132
P134
SLK
IDL 5V
R LAMP(−)
R LAMP(+)
STRT S
END S
CSW B
CSW A
GND(D)
TO SYSTEM CONTROL P144
P172
TAKE UP TORQUE
CASSETTE SW
TAKE UP BRAKE SL902
TO SENSOR(T) PCB
M904 REEL MOTOR
TO SENSER(S) PCB
REC SAFETY SW1
M903 LOADING MOTOR
SUPPLY BRAKE SL901
TO SENSOR(R) PCB
2SA1115
2SC2603
2SC3246
2SC2236
2SD1273
2SB895A
001638

MECHA DRIVE PCB V1030A5380(2ED)

WARNING: ⚠INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

AVERTISSEMENT: ⚠IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDEES PAR LE FABRICANT

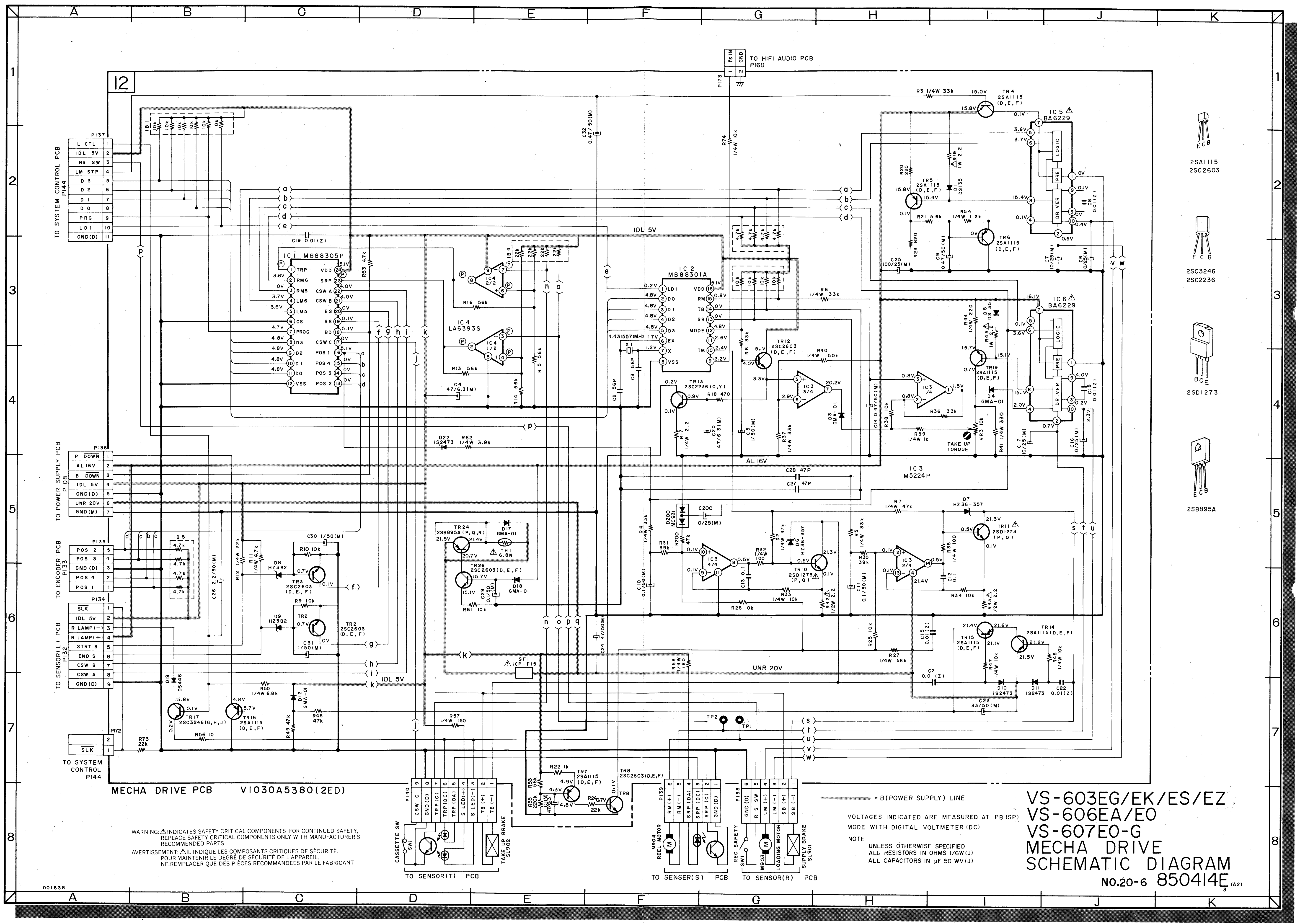
▨ = B(POWER SUPPLY) LINE

VOLTAGES INDICATED ARE MEASURED AT PB(SP) MODE WITH DIGITAL VOLTMETER(DC)

NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS 1/6W(J)
ALL CAPACITORS IN μF 50 WV(J)

VS-603EG/EK/ES/EZ
VS-606EA/EO
VS-607EO-G
MECHA DRIVE
SCHEMATIC DIAGRAM

NO.20-6 850414E$_3$ (A2)


12
TO HIFI AUDIO PCB P160
P173
TO SYSTEM CONTROL PCB P144
P137
L CTL
IDL 5V
RS SW
LM STP
D 3
D 2
D 1
D 0
PRG
LDI
GND(D)
IC1 MB88305P
IC2 MB88301A
IC3 M5224P
IC4 LA6393S
IC5 BA6229
IC6 BA6229
IDL 5V
AL 16V
UNR 20V
TO POWER SUPPLY PCB P108
P136
P DOWN
AL16V
B DOWN
IDL 5V
GND(D)
UNR 20V
GND(M)
TO ENCODER PCB P133
P135
POS 2
POS 3
GND(D)
POS 4
POS 1
TO SENSOR(L) PCB P132
P134
SLK
IDL 5V
R LAMP(−)
R LAMP(+)
STRT S
END S
CSW B
CSW A
GND(D)
P172
TO SYSTEM CONTROL P144
TAKE UP TORQUE
CASSETTE SW
TAKE UP BRAKE SL902
TO SENSOR(T) PCB
M904 REEL MOTOR
TO SENSER(S) PCB
REC SAFETY
M903 LOADING MOTOR
SUPPLY BRAKE SL901
TO SENSOR(R) PCB
2SA1115
2SC2603
2SC3246
2SC2236
2SD1273
2SB895A
001638

MECHA DRIVE PCB V1030A5380(2ED)

WARNING: ⚠INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

AVERTISSEMENT: ⚠IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDEES PAR LE FABRICANT

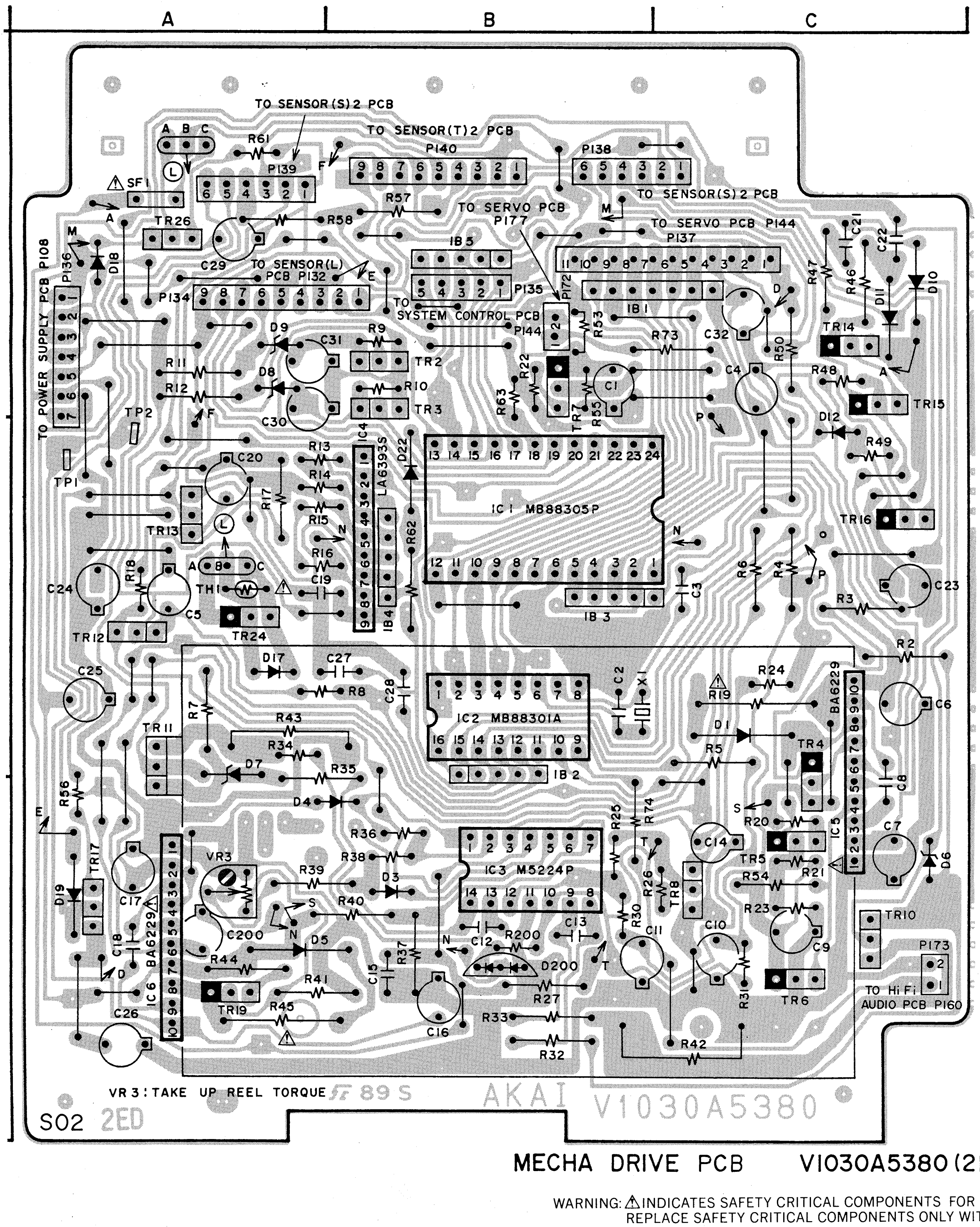
▨ = B(POWER SUPPLY) LINE

VOLTAGES INDICATED ARE MEASURED AT PB(SP) MODE WITH DIGITAL VOLTMETER(DC)

NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS 1/6W(J)
ALL CAPACITORS IN μF 50 WV(J)

VS-603EG/EK/ES/EZ
VS-606EA/EO
VS-607EO-G
MECHA DRIVE SCHEMATIC DIAGRAM

NO.20-6 850414E$_3$ (A2)


A
B
C
TO SENSOR(S)2 PCB
TO SENSOR(T)2 PCB
P140
P139
P138
TO SENSOR(S)2 PCB
TO SERVO PCB P177
TO SERVO PCB P144
P137
TO SENSOR(L) PCB P132
P134
TO SYSTEM CONTROL PCB P144
P135
P172
TO POWER SUPPLY PCB P108
P136
TP1
TP2
SF1
IC1 MB88305P
IC2 MB88301A
IC3 M5224P
IC4 LA6393S
IC5 BA6229
IC6 BA6229
IB1
IB2
IB3
IB4
IB5
X1
TH1
VR3
TO Hi Fi AUDIO PCB P160
P173
VR3: TAKE UP REEL TORQUE
S02 2ED
AKAI V1030A5380

MECHA DRIVE PCB V1030A5380(2ED)

WARNING: ⚠INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY,
REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S
RECOMMENDED PARTS

AVERTISSEMENT: ⚠IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ.
POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL,
NE REMPLACER QUE DES PIÈCES RECOMMANDEES PAR LE FABRICANT

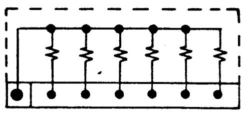
LOCATION OF COMPONENT

TRs	
TR2,3	B1
TR4,5,6	C3
TR7	B1
TR8,10	C3
TR11,12,13	A2
TR14,15	C1
TR16	C2
TR17,19	A3
TR24	A2
TR26	A1

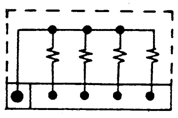
ICs	
IC1,2	B2
IC3	B3
IC4	B2
IC5	C3
IC6	A3

TR4 to 7,14,15,16,19	2SA1115(D,E,F)
TR2,3,8,12,26	2SC2603(D,E,F)
TR10,11	2SD1273(P,Q)
TR13	2SC2236(O,Y)
TR17	2SC3246(G,H,J)
TR24	2SB895A(P,Q,R)

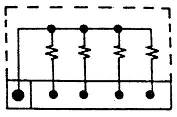
IB1 10k x 6



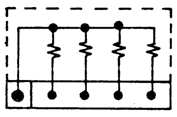
IB2 10k x 4

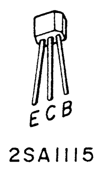


IB3,5 4.7k x 4

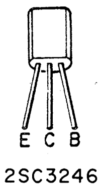


IB4 22k x 4

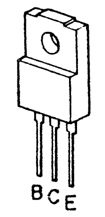




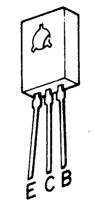
2SA1115
2SC2603



2SC3246
2SC2236



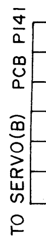
2SD1273

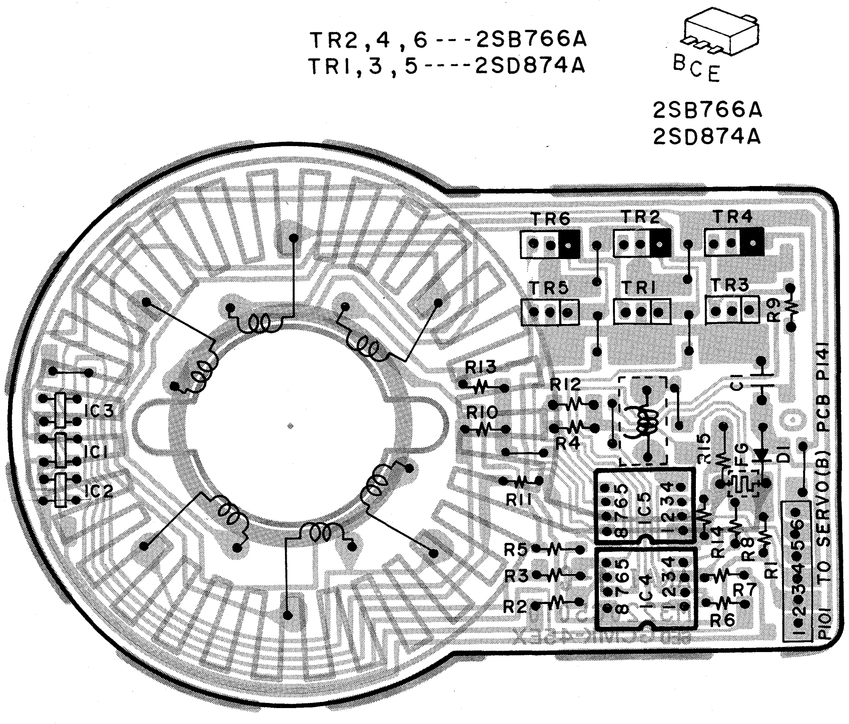


2SB895A

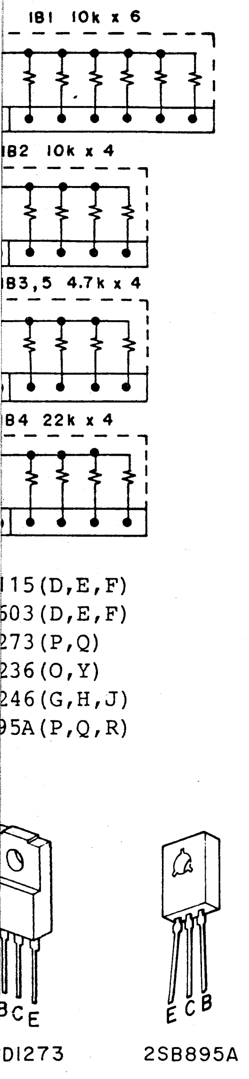
B
■ ● ● = NPN TRANSISTOR

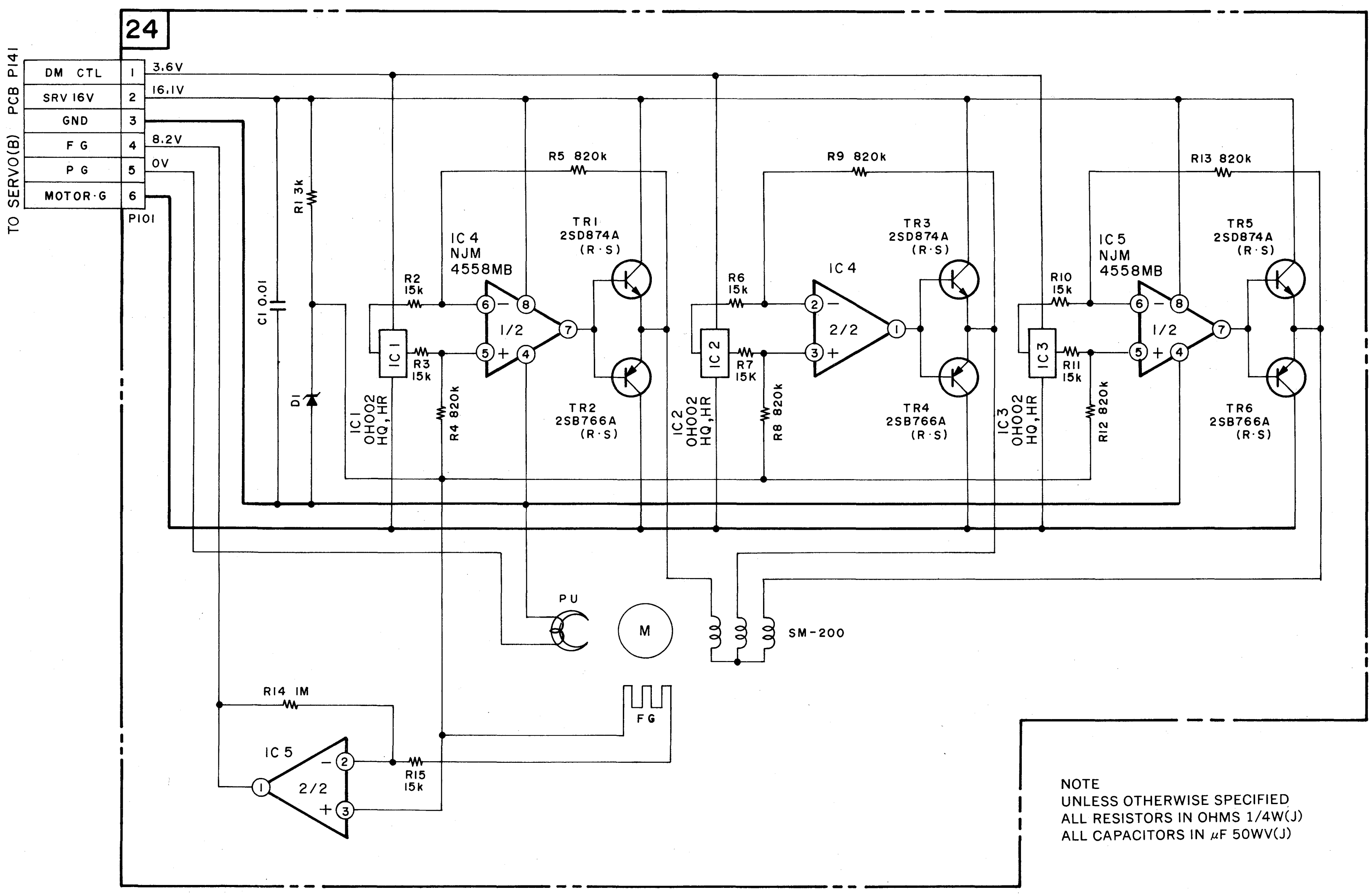
B
■ ● ● = PNP TRANSISTOR


TO SERVO(B) PCB P141


TR2,4,6---2SB766A
TR1,3,5----2SD874A
BCE
2SB766A
2SD874A
TR6
TR2
TR4
TR5
TR1
TR3
R9
C1
IC3
IC1
IC2
R13
R12
R10
R4
R15
FG
D1
R11
IC5
8765
1234
R14
R5
R3
R2
IC4
R8
R1
R7
R6
P101 TO SERVO(B) PCB P141
1 2 3 4 5 6

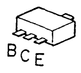
MOTOR PCB M3220C5010(6ED)


IB1 10k x 6
IB2 10k x 4
IB3,5 4.7k x 4
IB4 22k x 4
115(D,E,F)
503(D,E,F)
273(P,Q)
236(O,Y)
246(G,H,J)
5A(P,Q,R)
BCE
D1273
ECB
2SB895A


24
TO SERVO(B) PCB P141
DM CTL
SRV 16V
GND
F G
P G
MOTOR·G
1
2
3
4
5
6
P101
3.6V
16.1V
8.2V
0V
R1 3k
C1 0.01
D1
R5 820k
R9 820k
R13 820k
IC4
NJM
4558MB
IC4
IC5
NJM
4558MB
TR1
2SD874A
(R·S)
TR3
2SD874A
(R·S)
TR5
2SD874A
(R·S)
R2
15k
R6
15k
R10
15k
IC1
IC2
IC3
R3
15k
R7
15K
R11
15k
1/2
2/2
1/2
IC1
OH002
HQ,HR
IC2
OH002
HQ,HR
IC3
OH002
HQ,HR
R4 820k
R8 820k
R12 820k
TR2
2SB766A
(R·S)
TR4
2SB766A
(R·S)
TR6
2SB766A
(R·S)
PU
M
SM-200
R14 1M
IC5
2/2
R15
15k
FG

NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS 1/4W(J)
ALL CAPACITORS IN μF 50WV(J)

MOTOR PCB M3220C5010(6ED)



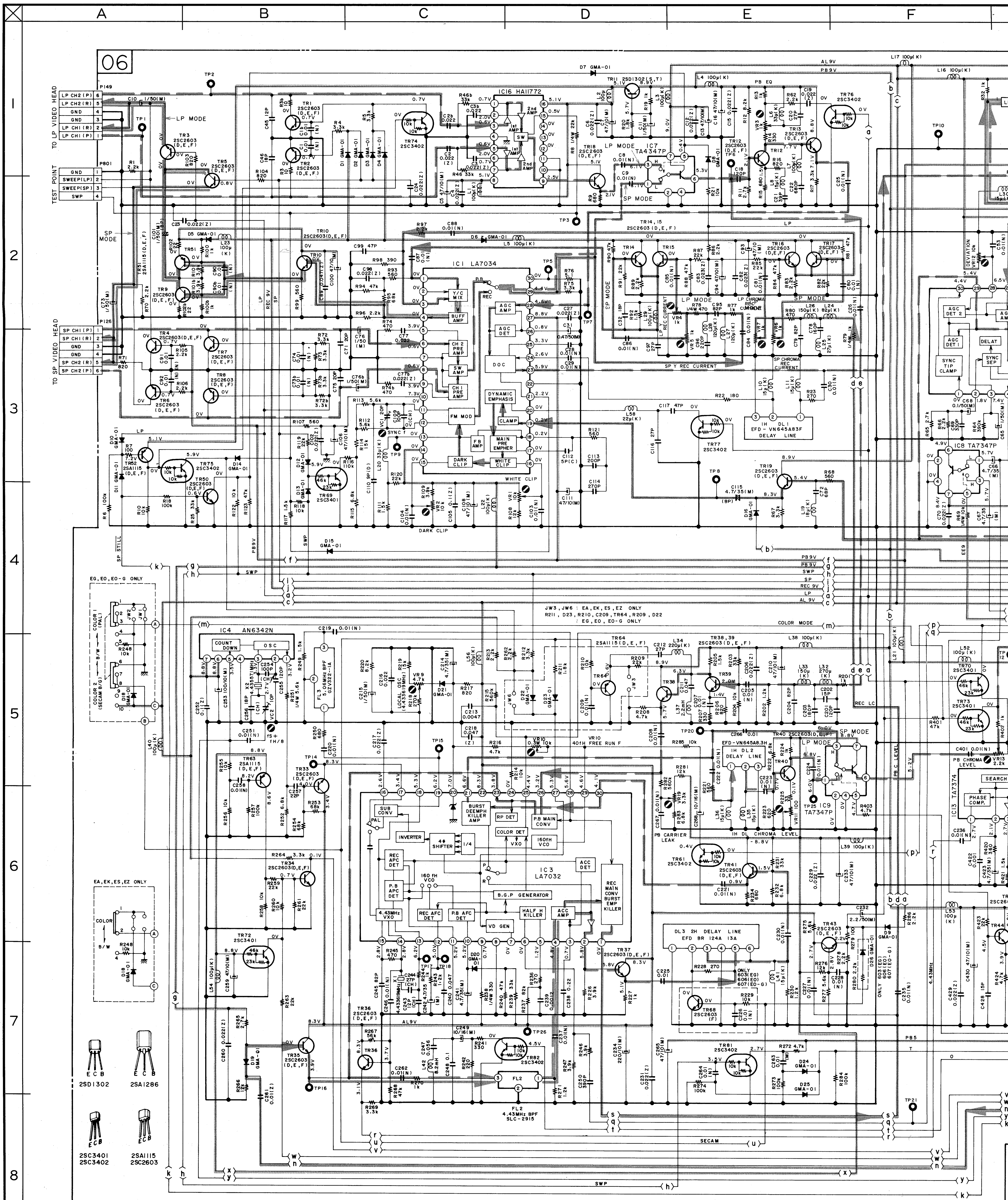
TR2,4,6---2SB766A
TR1,3,5----2SD874A

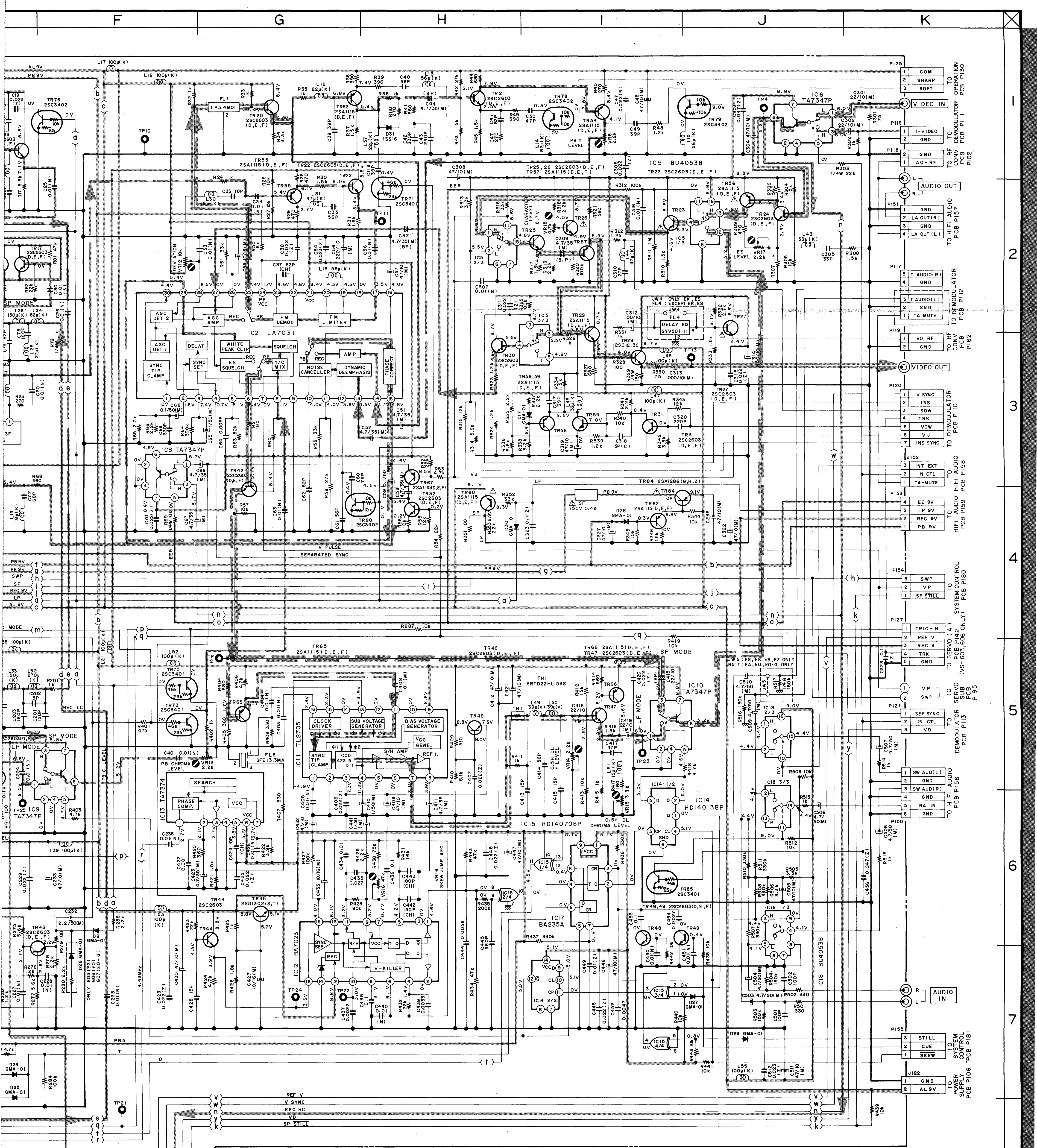
2SB766A
2SD874A

VOLTAGE INDICATED ARE MEASURED AT PB MODE
WITH DIGITAL TYPE TESTER

MOTOR PCB
SCHEMATIC DIAGRAM

NO.20-7 850419D$_2$ (A3)


06
TO LP VIDEO HEAD
LP CH2 (P)
LP CH2 (R)
GND
GND
LP CH1 (R)
LP CH1 (P)
TEST POINT
GND
SWEEP(LP)
SWEEP(SP)
SWP
TO SP VIDEO HEAD
SP CH1 (P)
SP CH1 (R)
GND
GND
SP CH2 (R)
SP CH2 (P)
P149
P801
P126
LP MODE
SP MODE
IC16 HA11772
IC1 LA7034
IC7 TA4347P
IC8 TA7347P
IC4 AN6342N
IC3 LA7032
IC9 TA7347P
IC13 TA7374
DL1 EFD-VN645A83F DELAY LINE
IH DL2 DELAY LINE EFD-VN645A8.3H
DL3 2H DELAY LINE EFD BR 124A 13A
FL2 4.43MHz BPF SLC-2915
FL3 5.06MHz BPF
Y/C MIX
BUFF AMP
CH 2 PRE AMP
SW AMP
CH 1 PRE AMP
FM MOD
AGC AMP
AGC DET
DOC
DYNAMIC EMPHASIS
CLAMP
MAIN PRE EMPHER
FB AMP
DARK CLIP
WHITE CLIP
COUNT DOWN
OSC
SUB CONV
INVERTER
4φ SHIFTER
1/4
BURST DEEMPH KILLER AMP
RP DET
COLOR DET
VXO
P.B MAIN CONV
160fH VCO
REC APC DET
P.B APC DET
4.43MHz VXO
REC AFC DET
P.B AFC DET
VD GEN
B.G.P GENERATOR
HALF H KILLER
ACC AMP
ACC DET
REC MAIN CONV BURST EMP KILLER
SYNC TIP CLAMP
AGC DET 1
AGC DET 2
DELAY
SYNC SEP
PHASE COMP.
SEARCH
JW3, JW6 : EA, EK, ES, EZ ONLY
R211, D23, R210, C209, TR64, R209, D22 : EG, EO, EO-G ONLY
EG, EO, EO-G ONLY
EA, EK, ES, EZ ONLY
COLOR 1 (PAL)
COLOR 2 (SECAM B/G)
B/W
COLOR
PB EQ
LP CHROMA REC CURRENT
SP CHROMA REC CURRENT
SP Y REC CURRENT
REC CURRENT
DEVIATION
PB CARRIER LEAK
IH DL CHROMA LEVEL
PB C LEVEL
PB CHROMA LEVEL
COLOR MODE
SECAM
SWP
AL 9V
PB 9V
REC 9V
PB5
SP STILL
DARK CLIP
WHITE CLIP
SYNC f
40fH FREE RUN F
TP1
TP2
TP3
TP5
TP7
TP8
TP9
TP10
TP14
TP15
TP16
TP17
TP18
TP20
TP21
TP25
TP26
ECB
2SD1302
2SA1286
2SC3401
2SC3402
2SA1115
2SC2603
001802
A
B
C
D
E
F
1
2
3
4
5
6
7
8


F
G
H
I
J
K
1
2
3
4
5
6
7
8
IC2 LA7031
AGC DET 2
AGC AMP
FM DEMOD
FM LIMITER
AGC DET 1
SYNC TIP CLAMP
SYNC SEP
DELAT
WHITE PEAK CLIP
EE SQUELCH
SQUELCH
Y/C MIX
AMP
NOISE CANCELLER
DYNAMIC DEEMPHASIS
PHASE CORRECT
IC8 TA7347P
IC5 BU4053B
IC6 TA7347P
IC9 TA7347P
IC10 TA7347P
IC11 TL8705
CLOCK DRIVER
SUB VOLTAGE GENERATOR
BIAS VOLTAGE GENERATOR
VGG GENE.
SYNC TIP CLAMP
CCD 423.5 bit
S/H AMP
REF.1
IC12 BA7023
SYNC SEP.
REG
V-KILLER
IC13 TA7374
SEARCH
PHASE COMP.
VCO
IC14 HD14013BP
IC15 HD14070BP
IC17 BA235A
IC18 BU4053B
TH1 ERTD2ZHL153S
FL1 LP3.4M01
FL4 DELAY EQ GYV501-IT
FL5 SFE13.3MA
SF1 150V 0.4A
JW4 : ONLY EK, ES
FL4 : EXCEPT EK, ES
JW5 : EG, EK, ES, EZ ONLY
R517 : EA, EO, EO-G ONLY
DEVIATION
CHARACTER LEVEL
PB Y LEVEL
EE LEVEL
PB CHROMA LEVEL
SKEW JUMP AFC
CHROMA LEVEL
V PULSE
SEPARATED SYNC
PB9V
PB8V
SWP
SP
REC 9V
LP
AL 9V
REF V
V SYNC
REC HC
VD
SP STILL
P125
COM
SHARP
SOFT
TO OPERATION PCB P130
VIDEO IN
P116
T-VIDEO
GND
TO DEMODULATOR PCB P111
P118
GND
AO-RF
TO RF CONV PCB P102
AUDIO OUT
P151
GND
LA OUT(R)
GND
LA OUT(L)
TO HIFI AUDIO PCB P157
P117
T AUDIO(R)
GND
T AUDIO(L)
GND
TA MUTE
TO DEMODULATOR PCB P112
P119
VO RF
GND
TO RF CONV PCB P162
VIDEO OUT
P120
V SYNC
INS
SOW
TRK
VOW
V J
INS SYNC
TO DEMODULATOR PCB P110
J152
INT EXT
IN CTL
TA-MUTE
TO HIFI AUDIO PCB P158
P153
EE 9V
LP 9V
REC 9V
PB 9V
TO HIFI AUDIO PCB P159
P154
SWP
VP
SP STILL
TO SYSTEM CONTROL PCB P180
P127
TRIC-H
REF V
REC 9
TRK
GND
TO SERVO (A) PCB P182 (VS-603, 606 ONLY)
VP
SWP
TO SERVO SUB PCB P195
P121
SEP SYNC
IN CTL
VD
TO DEMODULATOR PCB P113
SW AUD(L)
GND
SW AUD(R)
GND
NA IN
GND
TO HIFI AUDIO PCB P156
P150
AUDIO IN
P155
STILL
CUE
SKEW
TO SYSTEM CONTROL PCB P181
J122
GND
AL9V
TO POWER SUPPLY PCB P106
SP MODE
LP MODE
ONLY 603(EG) 606(EO) 607(EO-G)

B(POWER SUPPLY) LINE

REC Y SIGNAL LINE

P.B Y SIGNAL LINE

REC CHROMA SIGNAL LINE

P.B CHROMA SIGNAL LINE

VOLTAGES INDICATED ARE MEASURED AT PB(SP) MODE WITH DIGINAL VOLTMETER (DC).

NOTE

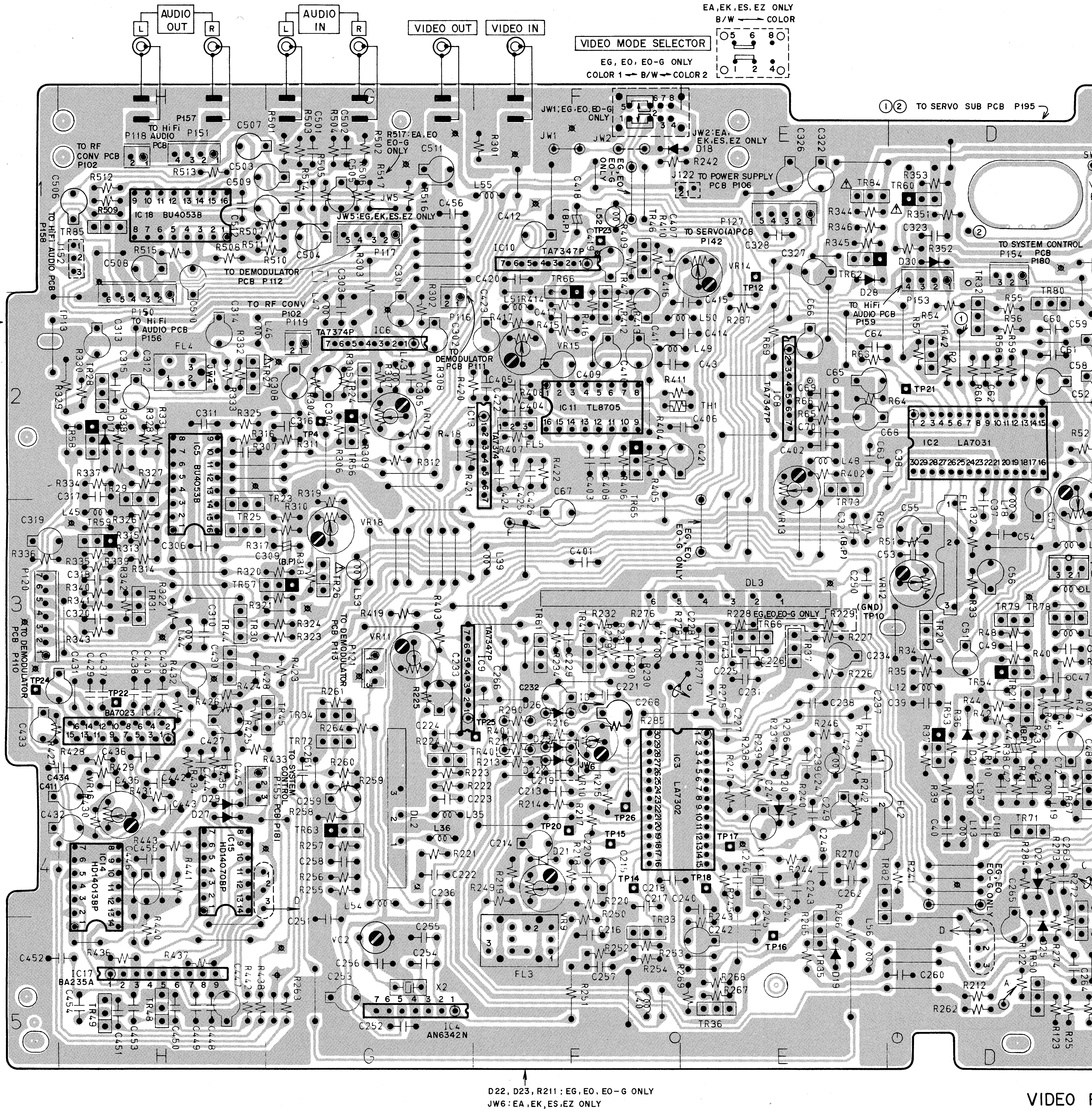
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS 1/6W(J)
ALL CAPACITORS IN μF 50 WV(J)

WARNING: ⚠INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

AVERTISSEMENT: ⚠IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDEES PAR LE FABRICANT

VS-603EG/EK/ES/EZ
VS-606EA/EO
VS-607EO-G VIDEO
SCHEMATIC DIAGRAM

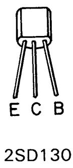
NO.20-8 851105A


AUDIO OUT
L
R
AUDIO IN
VIDEO OUT
VIDEO IN
VIDEO MODE SELECTOR
EG, EO, EO-G ONLY
COLOR 1 ← B/W ← COLOR 2
EA,EK,ES,EZ ONLY
B/W ← COLOR
①② TO SERVO SUB PCB P195
TO HiFi AUDIO PCB P157
TO RF CONV PCB P102
TO HiFi AUDIO PCB P158
TO HiFi AUDIO PCB P156
TO DEMODULATOR PCB P112
TO RF CONV P102
TO DEMODULATOR PCB P111
TO DEMODULATOR PCB P113
TO DEMODULATOR PCB P110
TO SYSTEM CONTROL PCB P181
TO POWER SUPPLY PCB P106
TO SERVO(A)PCB P142
TO SYSTEM CONTROL PCB P180
TO HiFi AUDIO PCB P159
JW1: EG, EO, EO-G ONLY
JW2: EA, EK, ES, EZ ONLY
JW5: EG, EK, ES, EZ ONLY
R517: EA, EO EO-G ONLY
R228 EG, EO, EO-G ONLY
JW4: EK, ES ONLY
FL4: EXCEPT EK, ES
IC18 BU4053B
IC5 BU4053B
IC6 TA7374P
IC10 TA7347P
IC11 TL8705
IC13 TA7374
IC8 TA7347P
IC2 LA7031
IC9 TA7347P
IC3 LA7302
IC4 AN6342N
IC14 HD14013BP
IC15 HD14070BP
IC17 BA235A
BA7023
DL2
DL3
FL3
X2
A
B
C
D
E
F
G
H
1
2
3
4
5

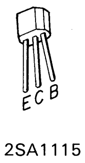
D22, D23, R211 : EG, EO, EO-G ONLY
JW6 : EA, EK, ES, EZ ONLY

VIDEO

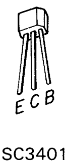
TR1 to 10, 12 to 27, 29 to 44, 46 to 50, 68	2SC2603 (D,E,F)
TR11, 45	2SD1302 (S,T)
TR28	2SC1213 (C)
TR51 to 60, 62 to 67	2SA1115 (D,E,F)
TR61, 74 to 82	2SC3402 (E,F,G)
TR69 to 73, 85	2SC3401
TR84	2SA1286 (G,H,J)



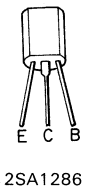
2SD1302



2SA1115
2SC2603



2SC3401
2SC3402

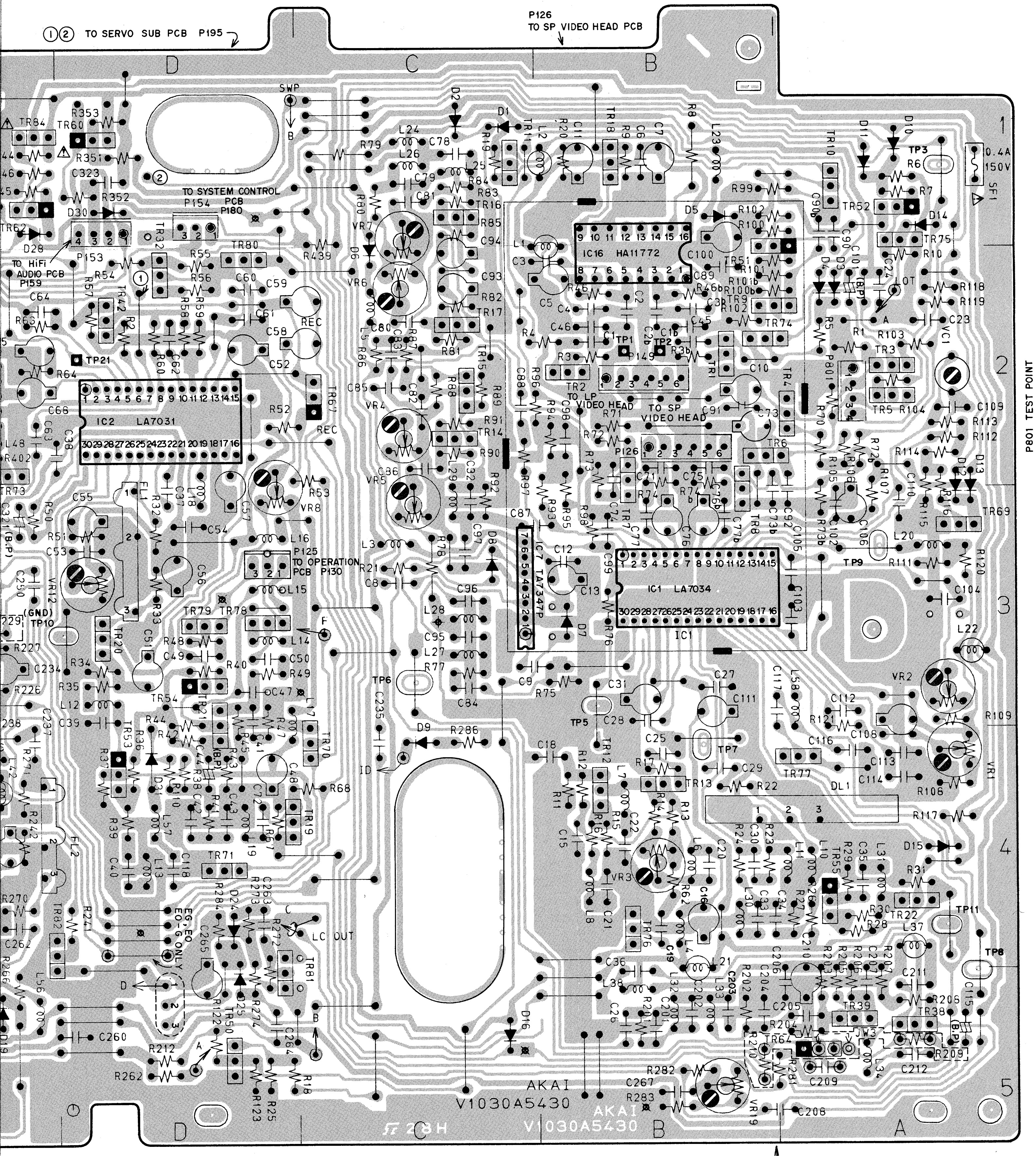


2SA1286

■●● PNP TRANSISTO
●●● NPN TRANSISTO

WARNING: ⚠INDICATES SAFETY C
REPLACE SAFETY CRIT
RECOMMENDED PARTS

AVERTISSEMENT: ⚠IL INDIQUE LE
POUR MAINTENIR LE D
NE REMPLACER QUE D



①② TO SERVO SUB PCB P195
P126 TO SP VIDEO HEAD PCB
TO SYSTEM CONTROL PCB P154
P180
TO HiFi AUDIO PCB P159
P153
TO OPERATION PCB P130
P125
TO LP VIDEO HEAD
TO SP VIDEO HEAD
P126
P149
IC1 LA7034
IC2 LA7031
IC7 TA7347P
IC16 HA11772
SWP
REC
LC OUT
ID
DL1
P801 TEST POINT
TP1
TP2
TP3
TP5
TP6
TP7
TP8
TP9
TP10
TP11
TP21
0.4A 150V
SF1
EG, EO, EO-G ONLY
AKAI V1030A5430
A
B
C
D
1
2
3
4
5

VIDEO PCB V1030A5430

TR64, R209, R210 : EG, EO, EO-G ONLY
JW3 : EA, EK, ES, EZ ONLY

LOCATION OF COMPONENTS

〈IC〉

IC1	B3
IC2	D2
IC3	F4
IC4	G5
IC5	H2
IC6	G2
IC7	B3
IC8	E2
IC9	G3
IC10	F1
IC11	F2
IC12	H4
IC13	F2
IC14	H4
IC15	H4
IC16	B2
IC17	H5
IC18	H1

〈TR〉

TR1	B2
TR2	B2
TR3	A2
TR4	B2
TR5	A2
TR6	B2
TR7	B2
TR8	B3
TR9	B2
TR10	A1
TR11	C1
TR12	B4
TR13	B4
TR14	C2
TR15	C2
TR16	C1
TR17	C2
TR18	B1
TR19	D4
TR20	D3
TR21	D3
TR22	A4
TR23	H3
TR24	G2
TR25	H3
TR26	G3
TR27	H2
TR28	H2
TR29	H2
TR30	H3
TR31	H3
TR32	D2
TR33	F5
TR34	G4
TR35	E5
TR36	E5
TR37	E3
TR38	A5
TR39	A5
TR40	G4
TR41	F3
TR42	D2
TR43	E3
TR44	H3
TR45	G4
TR46	F1
TR47	F2
TR48	H5
TR49	H5
TR50	D5
TR51	B2
TR52	A1
TR53	D4
TR54	D3
TR55	A4
TR56	G2
TR57	G3
TR58	H2
TR59	H3
TR60	D1
TR61	F3
TR62	E1
TR63	G4
TR64	A5
TR65	F2
TR66	F1
TR67	C2
TR68	E3
TR69	A3
TR70	C4
TR71	D4
TR72	G4
TR73	E2
TR74	B2
TR75	A1
TR76	B4
TR77	A4
TR78	D3
TR79	D3
TR80	D2
TR81	D5
TR82	E4
TR84	E1
TR85	H1

〈TERMINAL〉

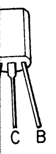
P116	G2
P117	G1
P118	H1
P119	G2
P120	H3
P121	G3
J122	E1
P125	D3
P126	B2
P127	E1
P149	B2
P150	H2
P151	H1
J152	H1
P153	D1
P154	D1
P155	H4
P801	A2
①	D2
②	D1

〈ADJUSTMENT POINTS〉

VR1	(A4)	WHITE CLIP
VR2	(A3)	DARK CLIP
VR3	(B4)	PB EQ (HEAD PEAKING)
VR4	(C2)	LP Y REC CURRENT
VR5	(C3)	SP Y REC CURRENT
VR6	(C2)	SP CHROMA REC CURRENT
VR7	(C1)	LP CHROMA REC CURRENT
VR8	(D3)	PB Y LEVEL
VR9	(F4)	LOCAL OSC (4.433619 MHz)
VR10	(F4)	40 f_H FREE RUN f
VR11	(G3)	1H DL CHROMA LEVEL
VR12	(D3)	DEVIATION
VR13	(E2)	PB CHROMA LEVEL
VR14	(E1)	0.5 H DL Y LEVEL
VR15	(F2)	0.5 H DL CHROMA LEVEL
VR16	(H4)	SKEW JUMP AFC
VR17	(G2)	EE LEVEL
VR18	(G3)	CHARACTER LEVEL
VR19	(B5)	PB CARRIER LEAK
VC1	(A2)	SYNC f
VC2	(G5)	$f_S + f_H/8$

■●● PNP TRANSISTOR
●●● NPN TRANSISTOR

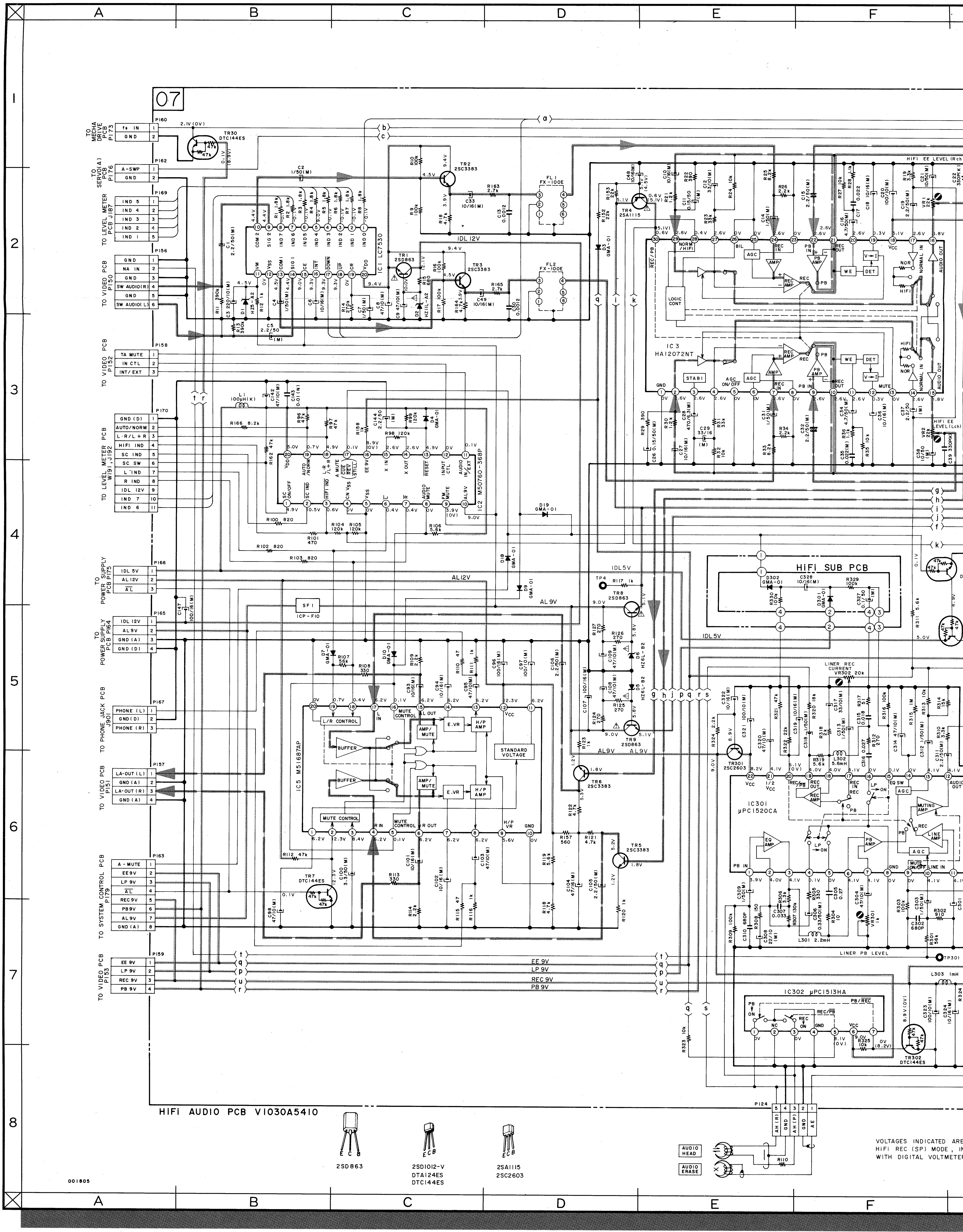
NOTE.
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS 1/6W (J)
ALL CAPACITORS IN μF 50WV (J)



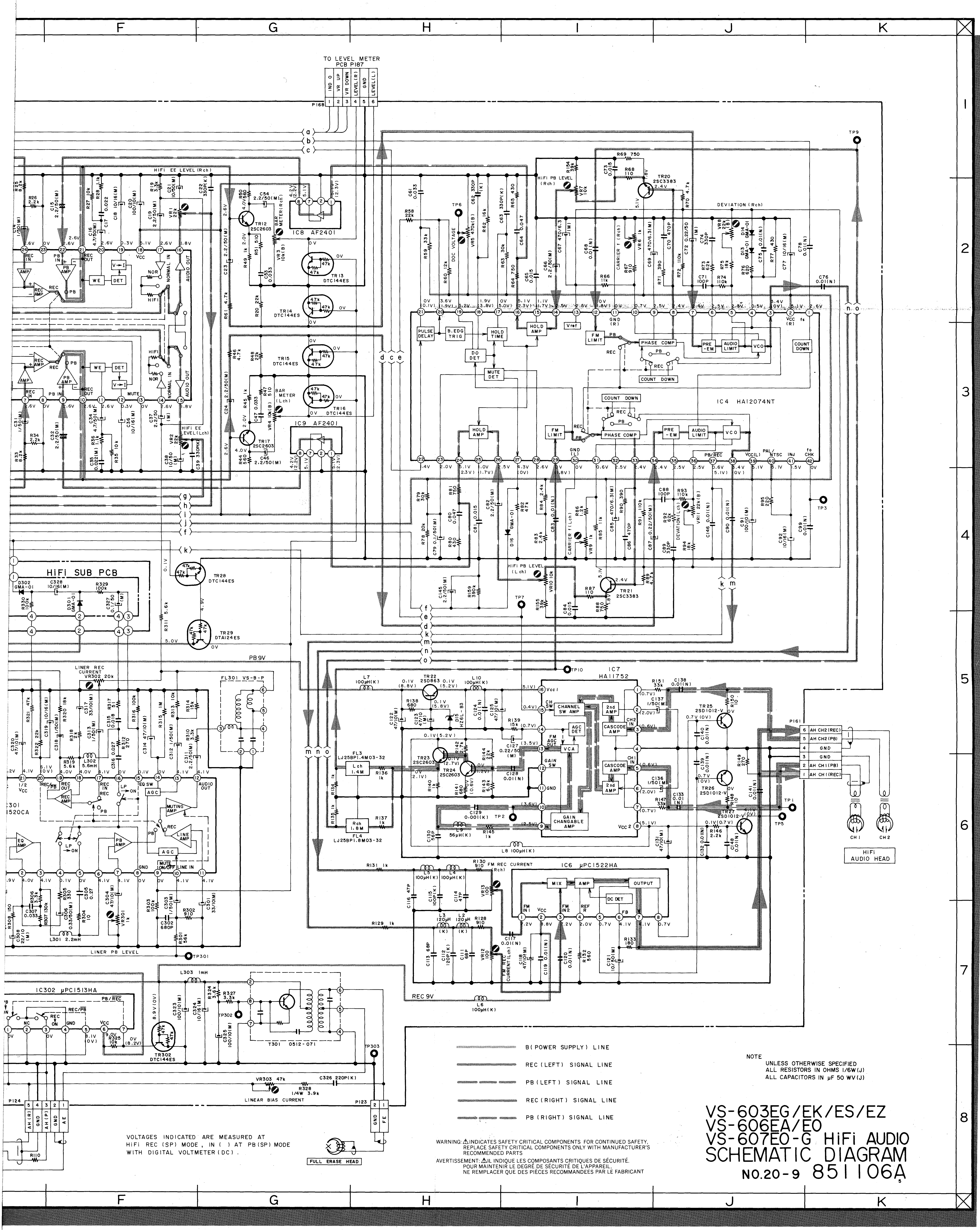
A1286

WARNING: ⚠ INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

AVERTISSEMENT: ⚠ IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDEES PAR LE FABRICANT


07
A
B
C
D
E
F
1
2
3
4
5
6
7
8
TO MECHA DRIVE PCB P173
fs IN
GND
P160
TR30 DTC144ES
TO SERVO(A) PCB P176
A-SWP
GND
P162
TO LEVEL METER PCB J187
IND 5
IND 4
IND 3
IND 2
IND 1
P169
TO VIDEO PCB P150
GND
NA IN
GND
SW AUDIO(R)
GND
SW AUDIO(L)
P156
IC1 LC7530
TR1 2SD863
TR2 2SC3383
TR3 2SC3383
FL1 FX-100E
FL2 FX-100E
IDL 12V
TO VIDEO PCB P152
TA MUTE
IN CTL
INT/EXT
P158
TO LEVEL METER W1(9), J192
GND (D)
AUTO/NORM
L·R/L+R
HIFI IND
SC IND
SC SW
L IND
R IND
IDL 12V
IND 7
IND 6
P170
IC2 M50760-368P
TO POWER SUPPLY PCB P175
IDL 5V
AL12V
AL
P166
TO POWER SUPPLY PCB P164
IDL 12V
AL9V
GND (A)
GND (D)
P165
SF1 ICP-F10
IC5 M51687AP
L/R CONTROL
BUFFER
AMP/MUTE
E.VR
H/P AMP
STANDARD VOLTAGE
MUTE CONTROL
TO PHONE JACK PCB J901
PHONE (L)
GND (D)
PHONE (R)
P167
TO VIDEO PCB P151
LA-OUT (L)
GND (A)
LA-OUT (R)
GND (A)
P157
TO SYSTEM CONTROL PCB P179
A-MUTE
EE9V
LP 9V
AL
REC9V
PB9V
AL9V
GND (A)
P163
TR7 DTC144ES
TO VIDEO PCB P153
EE 9V
LP 9V
REC 9V
PB 9V
P159
TR4 2SA1115
TR5 2SC3383
TR6 2SC3383
TR8 2SD863
TR9 2SD863
TP4
IC3 HA12072NT
LOGIC CONT
AGC
AMP
REC AMP
PB AMP
WE
DET
STABI
HIFI EE LEVEL (Rch)
HIFI EE LEVEL (Lch)
HIFI SUB PCB
LINER REC CURRENT VR302 20k
TR301 2SC2603
IC301 μPC1520CA
EQ AMP
LINE AMP
MUTING AMP
LINER PB LEVEL
TP301
IC302 μPC1513HA
TR302 DTC144ES
P124
AH(R)
GND
AH(P)
GND
AE
AUDIO HEAD
AUDIO ERASE
HIFI AUDIO PCB V1030A5410
2SD863
2SD1012-V DTA124ES DTC144ES
2SA1115 2SC2603
E C B
001805

VOLTAGES INDICATED ARE
HIFI REC (SP) MODE , I
WITH DIGITAL VOLTMETER



TO LEVEL METER PCB P187
IND O
VR UP
VR DOWN
LEVEL(R)
GND
LEVEL(L)
P168
HIFI EE LEVEL (Rch)
HIFI EE LEVEL (Lch)
IC8 AF2401
IC9 AF2401
TR12 2SC2603
TR13 DTC144ES
TR14 DTC144ES
TR15 DTC144ES
TR16 DTC144ES
TR17 2SC2603
BAR METER (Rch)
BAR METER (Lch)
HIFI PB LEVEL (Rch)
HIFI PB LEVEL (Lch)
TR20 2SC3383
TR21 2SC3383
DEVIATION (Rch)
DEVIATION (Lch)
CARRIER f (Rch)
CARRIER f (Lch)
DOC VOLTAGE
TP3
TP6
TP7
TP9
IC4 HA12074NT
PULSE DELAY
B.EDG TRIG
DO DET
HOLD TIME
HOLD AMP
MUTE DET
Vref
FM LIMIT
PHASE COMP
PRE-EM
AUDIO LIMIT
VCO
COUNT DOWN
HIFI SUB PCB
TR28 DTC144ES
TR29 DTA124ES
PB9V
LINER REC CURRENT
FL301 VS-B-P
IC301 μPC1520CA
EQ AMP
PB AMP
REC AMP
AGC
MUTING AMP
LINE AMP
LINER PB LEVEL
TP301
IC7 HA11752
TP10
TR22 2SD863
TR23 2SC2603
TR24 2SC2603
FL3 LJ25BP1.4M03-32
FL4 LJ25BP1.8M03-32
CHANNEL SW AMP
AGC DET
VCA
GAIN SW
GAIN CHANGABLE AMP
2nd AMP
CASCODE AMP
TR25 2SD1012-V
TR26 2SD1012-V
TR27 2SD1012-V
TP1
TP2
TP5
P161
AH CH2(REC)
AH CH2(PB)
GND
AH CH1(PB)
AH CH1(REC)
CH1
CH2
HIFI AUDIO HEAD
IC6 μPC1522HA
FM REC CURRENT (Rch)
FM REC CURRENT (Lch)
MIX
AMP
OUTPUT
DC DET
REC 9V
IC302 μPC1513HA
TR302 DTC144ES
T301 0512-071
TP302
TP303
VR303 47k
LINEAR BIAS CURRENT
P124
P123
FULL ERASE HEAD
B(POWER SUPPLY) LINE
REC(LEFT) SIGNAL LINE
PB(LEFT) SIGNAL LINE
REC(RIGHT) SIGNAL LINE
PB(RIGHT) SIGNAL LINE
F
G
H
I
J
K
1
2
3
4
5
6
7
8

VOLTAGES INDICATED ARE MEASURED AT HIFI REC (SP) MODE, IN ( ) AT PB(SP) MODE WITH DIGITAL VOLTMETER (DC).

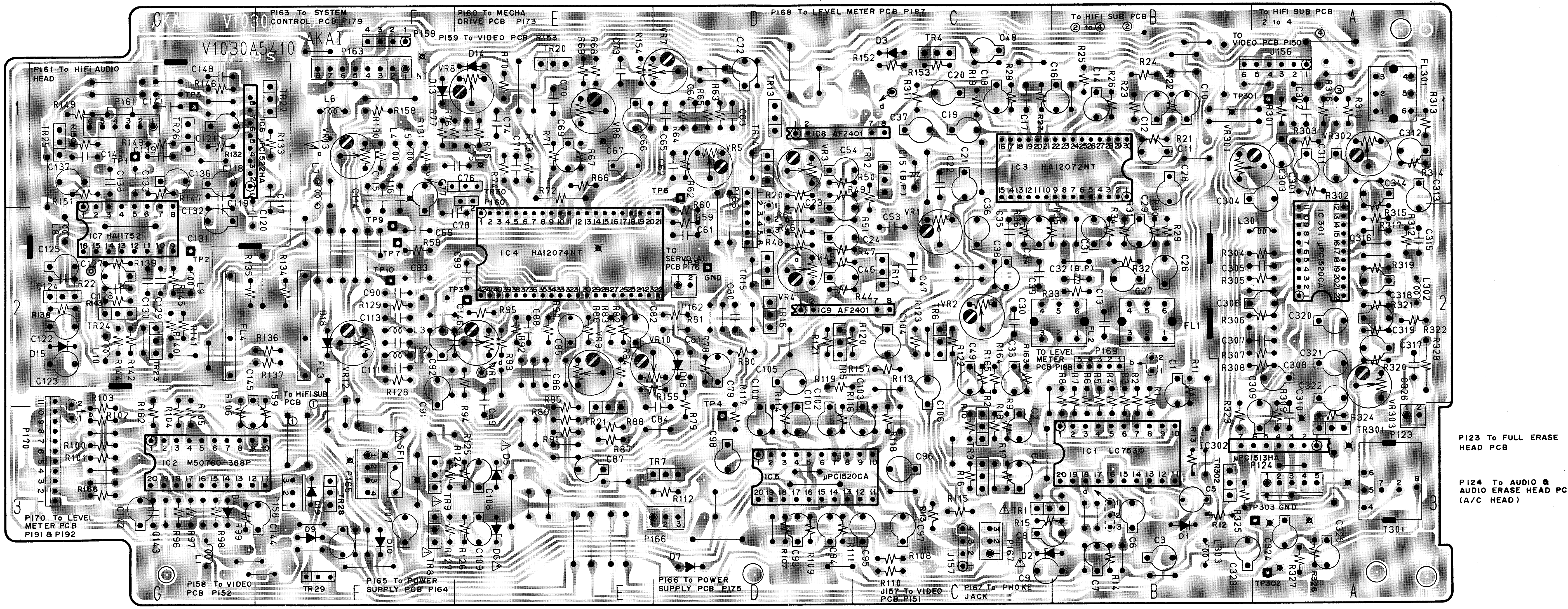
NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS 1/6W (J)
ALL CAPACITORS IN μF 50 WV (J)

WARNING: ⚠ INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY. REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

AVERTISSEMENT: ⚠ IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDÉES PAR LE FABRICANT

VS-603EG/EK/ES/EZ
VS-606EA/EO
VS-607EO-G HiFi AUDIO
SCHEMATIC DIAGRAM

NO.20-9 851106A


AKAI V1030A5410
P163 To SYSTEM CONTROL PCB P179
P160 To MECHA DRIVE PCB P173
P159 To VIDEO PCB P153
P168 To LEVEL METER PCB P187
To HiFi SUB PCB ② to ④
To HiFi SUB PCB 2 to 4
To VIDEO PCB P150
P161 To HiFi AUDIO HEAD
TO SERVO (A) PCB P176
TO LEVEL METER PCB P188
To HiFi SUB PCB ①
P170 To LEVEL METER PCB P191 & P192
P158 To VIDEO PCB P152
P165 To POWER SUPPLY PCB P164
P166 To POWER SUPPLY PCB P175
J157 To VIDEO PCB P151
P167 To PHOKE JACK
P123 To FULL ERASE HEAD PCB
P124 To AUDIO & AUDIO ERASE HEAD PCB (A/C HEAD)
IC1 LC7530
IC2 M50760-368P
IC3 HA12072NT
IC4 HA12074NT
IC5 μPC1520CA
IC6 μPC1522HA
IC7 HA11752
IC8 AF2401
IC9 AF2401
IC301 μPC1520CA
IC302 μPC1513HA
A B C D E F G
1 2 3

HiFi AUDIO PCB V1030A5410

〈 LOCATION OF COMPONENTS 〉

(IC)	
IC1	B3
IC2	G3
IC3	B1
IC4	E2
IC5	D3
IC6	G1
IC7	G2
IC8	D1
IC9	D2
IC301	A2
IC302	A3

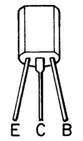
(TR)	
TR1	C3
TR2	C3
TR3	C3
TR4	C1
TR5	D2
TR6	C2
TR7	D3
TR8	F3
TR9	F3
TR12	C1
TR13	D1
TR14	D1
TR15	D2
TR16	D2
TR17	C2
TR20	E1
TR21	E3
TR22	G2
TR23	G2
TR24	G2
TR25	G1
TR26	G1
TR27	F1
TR28	F3
TR29	F3
TR30	E1
TR301	A3
TR302	A3

(CONNECTOR)	
P123	A3
P124	A3
P156	A1
P157	C3
P158	F3
P159	F1
P160	E1
P161	G1
P162	D2
P163	F1
P165	F3
P166	D3
P167	C3
P168	D2
P169	B2
P170	G3

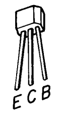
(TP)	
TP1	G1
TP2	G2
TP3	E2
TP4	D3
TP5	G1
TP6	D1
TP7	F2
TP8	D2
TP9	F2
TP10	F2

〈 ADJUSTMENT POINTS 〉

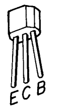
VR		
VR	1	EE LEVEL (R)
	2	EE LEVEL (L)
	3	METER (R)
	4	METER (L)
	5	DOC VOLTAGE
	6	CARRIER f(R)
	7	HiFi PB LEVEL (R)
	8	DEVIATION (R)
	9	CARRIER f(L)
	10	HiFi PB LEVEL (L)
	11	DEVIATION (L)
	12	FM REC CURRENT (L)
	13	FM REC CURRENT (R)
	301	LINEAR PB LEVEL
	302	LINEAR REC CURRENT
	303	LINEAR BIAS CURRENT



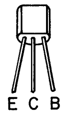
2SD863



2SD1012-V
DTA124ES
DTC144ES



2SA1115
2SC2603



2SA1391

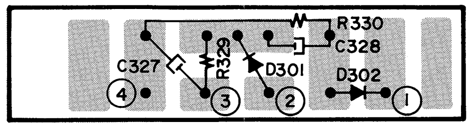
■●● = PNP TRANSISTOR

●●● = NPN TRANSISTOR

WARNING: ⚠INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

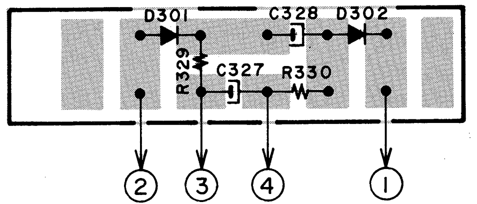
AVERTISSEMENT: ⚠IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDEES PAR LE FABRICANT

Hi Fi SUB PCB

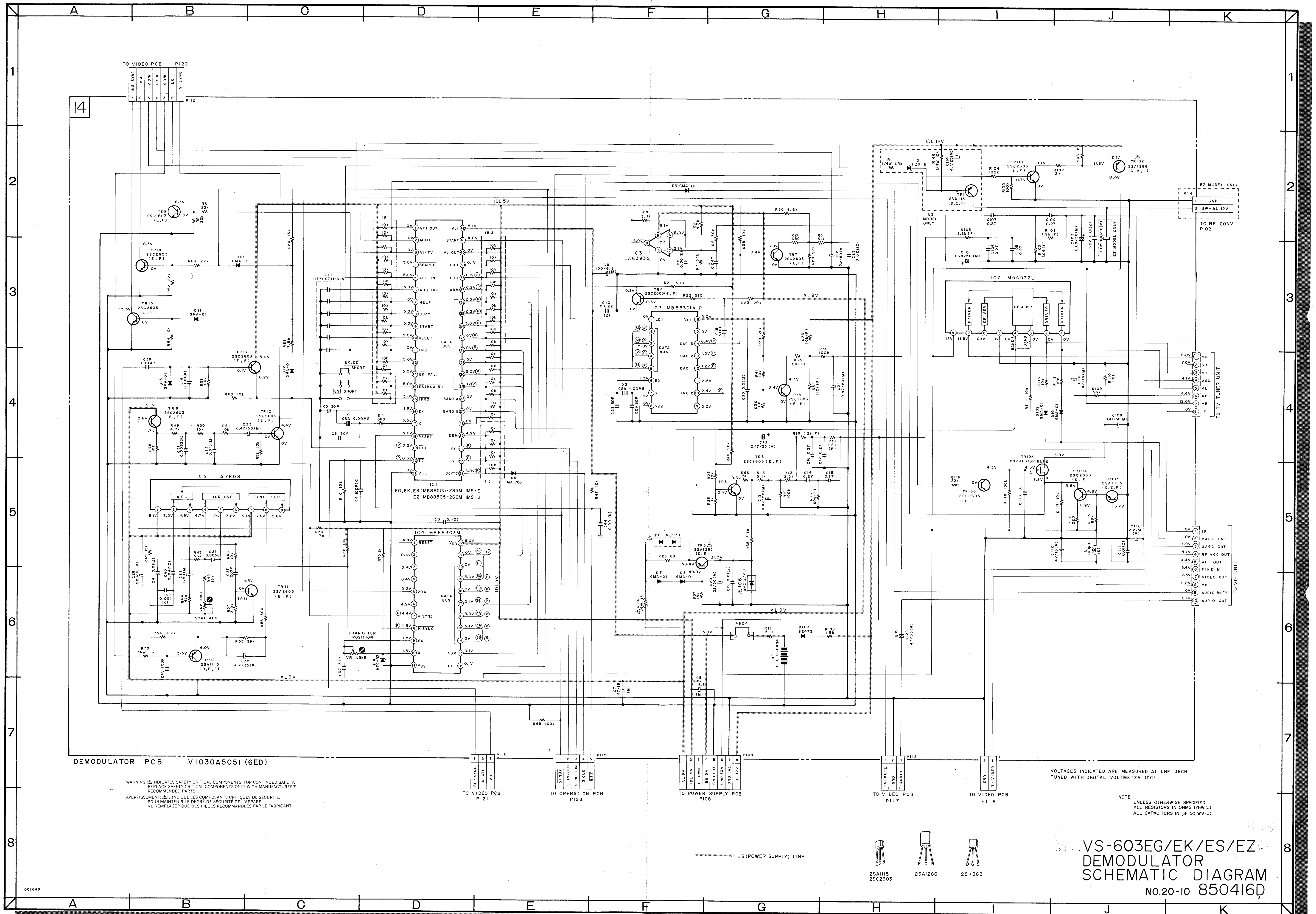

R330
C328
C327
R329
D301
D302
④
③
②
①

① to ④ : TO Hi Fi PCB ① to ④

HiFi SUB PCB


D301
C328
D302
R329
C327
R330
②
③
④
①

TO HiFi AUDIO PCB


14
TO VIDEO PCB P120
INS SYNC
V J
V DW
TRCK
SDW
INS
V SYNC
P110
IDL 5V
IDL 12V
AL9V
IC1
EG,EK,ES: MB88505-285M IMS-E
EZ: MB88505-266M IMS-U
IC2 MB88301A-P
IC3 LA6393S
IC4 MB88303M
IC5 LA7808
AFC
HOR OSC
SYNC SEP
IC7 M54572L
DRIVER
DECODER
DATA BUS
CB1 B7Z0711-32N
IB1
IB2
IB3
EK,EZ SHORT
ES SHORT
X1 CSA 4.00MG
X2 CSA 4.00MG
CHARACTER POSITION
VR1 1.5kB
SYNC AFC
TR1 2SA1115 (D,E,F)
TR3 2SC2603 (E,F)
TR4 2SC2603 (E,F)
TR5 2SA1283 (D,E)
TR6 2SC2603 (E,F)
TR7 2SC2603 (E,F)
TR8 2SC2603 (E,F)
TR9 2SC2603 (E,F)
TR10 2SC2603 (E,F)
TR11 2SA2603 (E,F)
TR12 2SA1115 (D,E,F)
TR13 2SC2603 (E,F)
TR14 2SC2603 (E,F)
TR15 2SC2603 (E,F)
TR101 2SC2603 (E,F)
TR102 2SA1286 (G,H,J)
TR103 2SA1115 (D,E,F)
TR104 2SC2603 (E,F)
TR105 2SK363(GR,BL)
TR106 2SC2603 (E,F)
EZ MODEL ONLY
P114
GND
SW-AL 12V
TO RF CONV P102
TO TV TUNER UNIT
VU
VT
VH
AGC
VL
AFT
VB
IF
TO VIF UNIT
IF
VAGC CNT
UAGC CNT
RF AGC OUT
AFT OUT
FINE IN
VIDEO OUT
VB
AUDIO MUTE
AUDIO OUT
P804
RT1 P-01H-FAN4
TO VIDEO PCB P121
SEP SYNC
IN CTL
V D
P113
TO OPERATION PCB P128
STNBY
S IN/OUT
S OUT/IN
S CLK
RST
P115
TO POWER SUPPLY PCB P105
AL 9V
IDL 5V
P-DWN
BU 5V
GND
UNR 50V
GND
IDL 12V
P109
TO VIDEO PCB P117
TA-MUTE
GND
T-AUDIO
P112
TO VIDEO PCB P116
GND
T-VIDEO
P111
+B(POWER SUPPLY) LINE
2SA1115
2SC2603
2SA1286
2SK363
001648

DEMODULATOR PCB V1030A5051 (6ED)

WARNING: ⚠ INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY.
REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S
RECOMMENDED PARTS

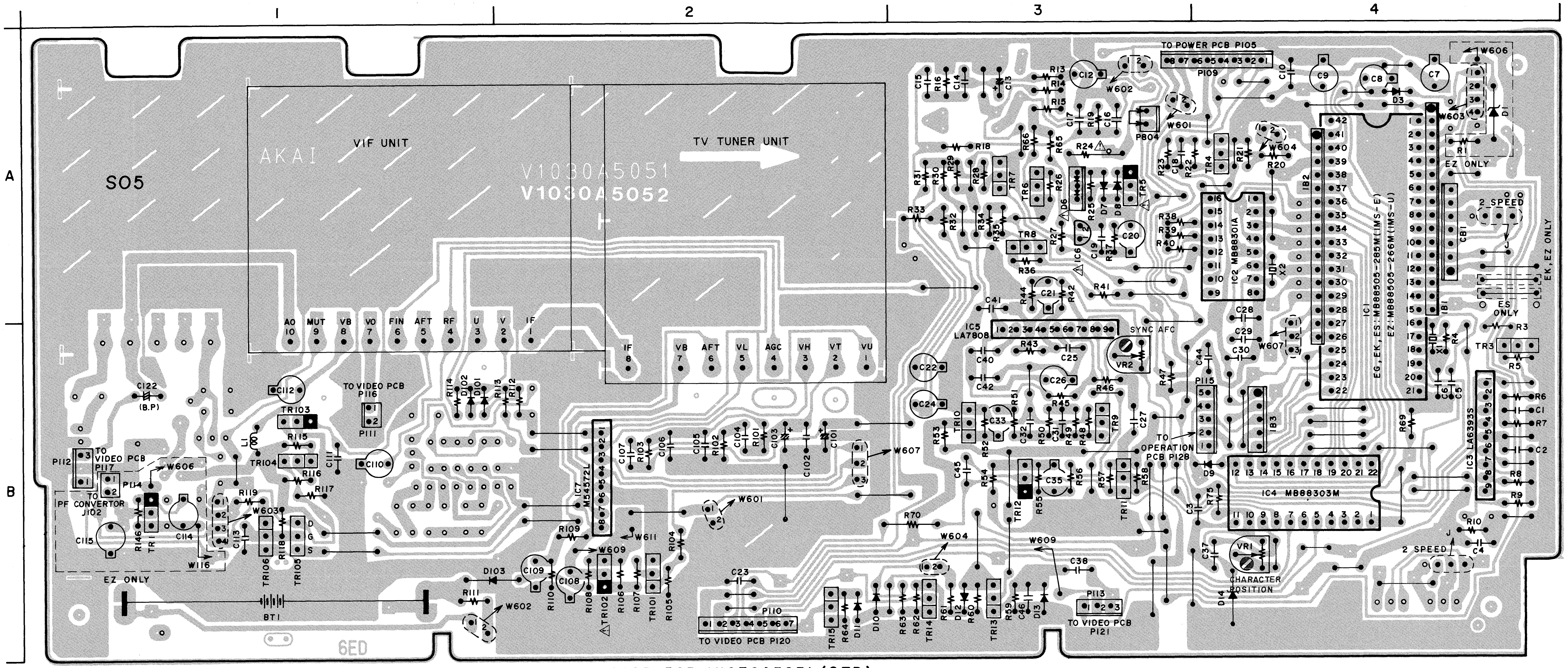
AVERTISSEMENT: ⚠ IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ.
POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL,
NE REMPLACER QUE DES PIÈCES RECOMMANDEES PAR LE FABRICANT

VOLTAGES INDICATED ARE MEASURED AT UHF 38CH
TUNED WITH DIGITAL VOLTMETER (DC)

NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS 1/6W (J)
ALL CAPACITORS IN µF 50 WV (J)

VS-603EG/EK/ES/EZ DEMODULATOR SCHEMATIC DIAGRAM

NO.20-10 850416D


1
2
3
4
A
B
S05
AKAI
VIF UNIT
TV TUNER UNIT
V1030A5051
V1030A5052
AO MUT VB VO FIN AFT RF U V IF
IF VB AFT VL AGC VH VT VU
TO POWER PCB P105
P109
TO VIDEO PCB P116
P111
TO VIDEO PCB P117
P112
P114
TO IPF CONVERTOR J102
EZ ONLY
BT1
6ED
IC7 M54572L
IC5 LA7808
SYNC AFC
IC2 MB88301A
IC1 EG,EK,ES:MB88505-285M(IMS-E) EZ:MB88505-266M(IMS-U)
IC4 MB88303M
IC3 LA6393S
TO OPERATION PCB P128
P115
TO VIDEO PCB P120
P110
TO VIDEO PCB P121
P113
CHARACTER POSITION
2 SPEED
ES ONLY
EK, EZ ONLY

DEMODULATOR PCB V1030A5051 (6ED)

LOCATION OF COMPONENTS

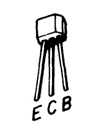
TRs	
TR1	B1
TR3	B4
TR4	A4
TR5 to 8	A3
TR9 to 15	B3
TR101	B2
TR102	B2
TR103	B1
TR104	B1
TR105	B1
TR106	B1

ICs	
IC1	A4
IC2	A4
IC3	B4
IC4	B4
IC5	A3
IC6	A3
IC7	B2

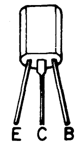
TR3, 4, 6 to 11, 13
14, 15, 101, 104, 106 -- 2SC2603
TR5 ------------ 2SA1283
TR1, 12, 103 ------- 2SA1115
TR102 ----------- 2SA1286
TR105 ----------- 2SK363

B ●●● = NPN TRANSISTOR

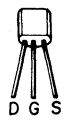
B ■●● = PNP TRANSISTOR



2SA1115
2SC2603



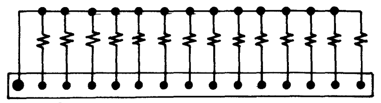
2SA1286
2SA1283



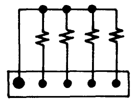
2SK363

WARNING: ⚠ INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY. REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

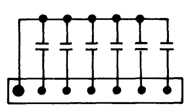
AVERTISSEMENT: ⚠ IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDEES PAR LE FABRICANT



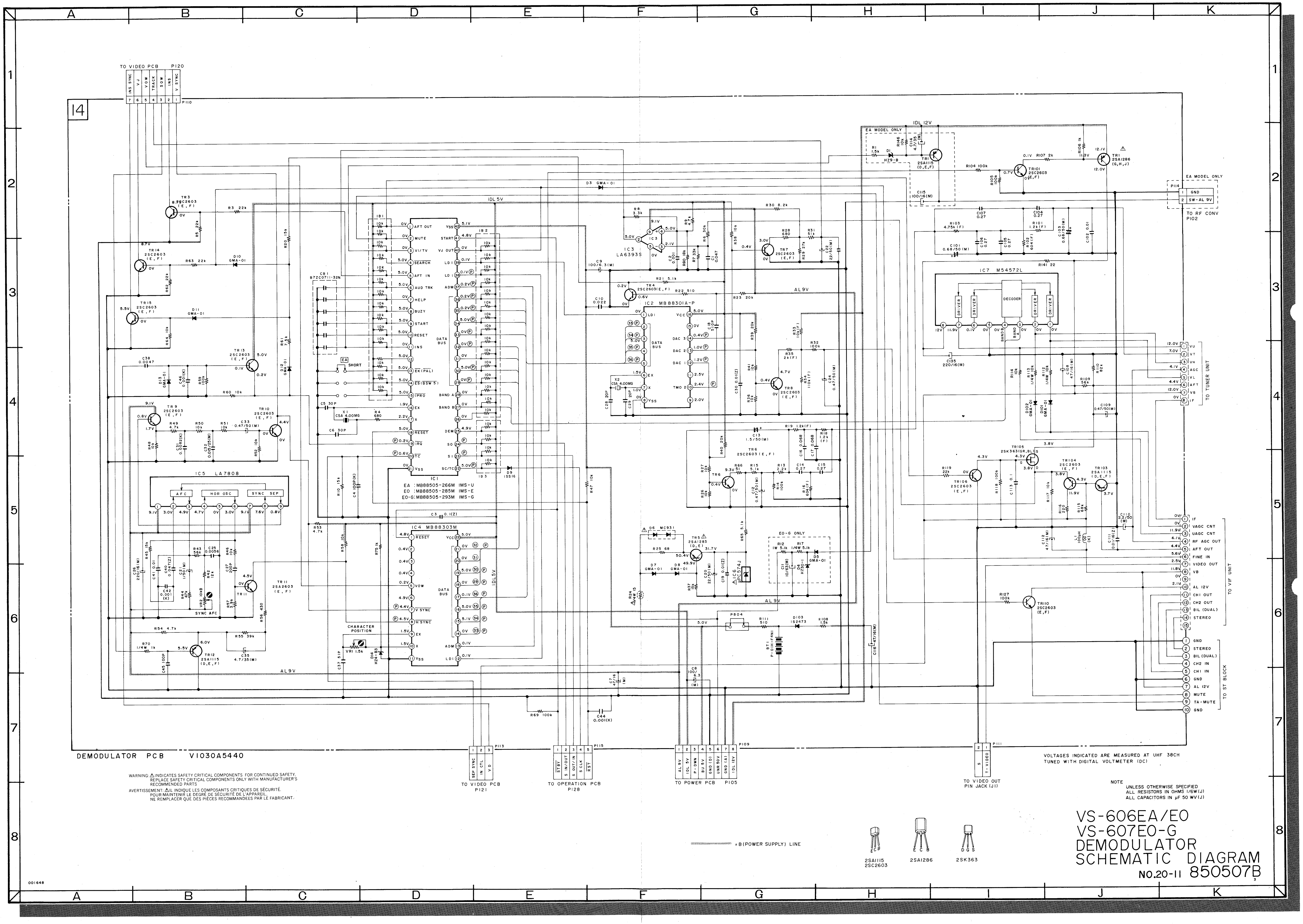
IB1, 2



IB3



CB1


14
TO VIDEO PCB P120
INS SYNC
VJ
VOW
TRACK
SOW
INS
V SYNC
P110
IC1
EA : MB88505-266M IMS-U
EO : MB88505-285M IMS-E
EO-G: MB88505-293M IMS-G
IC2 MB88301A-P
IC3 LA6393S
IC4 MB88303M
IC5 LA7808
AFC
HOR OSC
SYNC SEP
SYNC AFC
IC7 M54572L
DRIVER
DECODER
IDL 5V
IDL 12V
AL 9V
EA MODEL ONLY
EO-G ONLY
CHARACTER POSITION
DATA BUS
P114
GND
SW-AL 9V
TO RF CONV P102
TO TUNER UNIT
TO VIF UNIT
TO ST BLOCK
DEMODULATOR PCB V1030A5440
TO VIDEO PCB P121
TO OPERATION PCB P128
TO POWER PCB P105
TO VIDEO OUT PIN JACK (J1)
P113
P115
P109
P111
P804
2SA1115
2SC2603
2SA1286
2SK363
+B (POWER SUPPLY) LINE
001648

WARNING: ⚠ INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

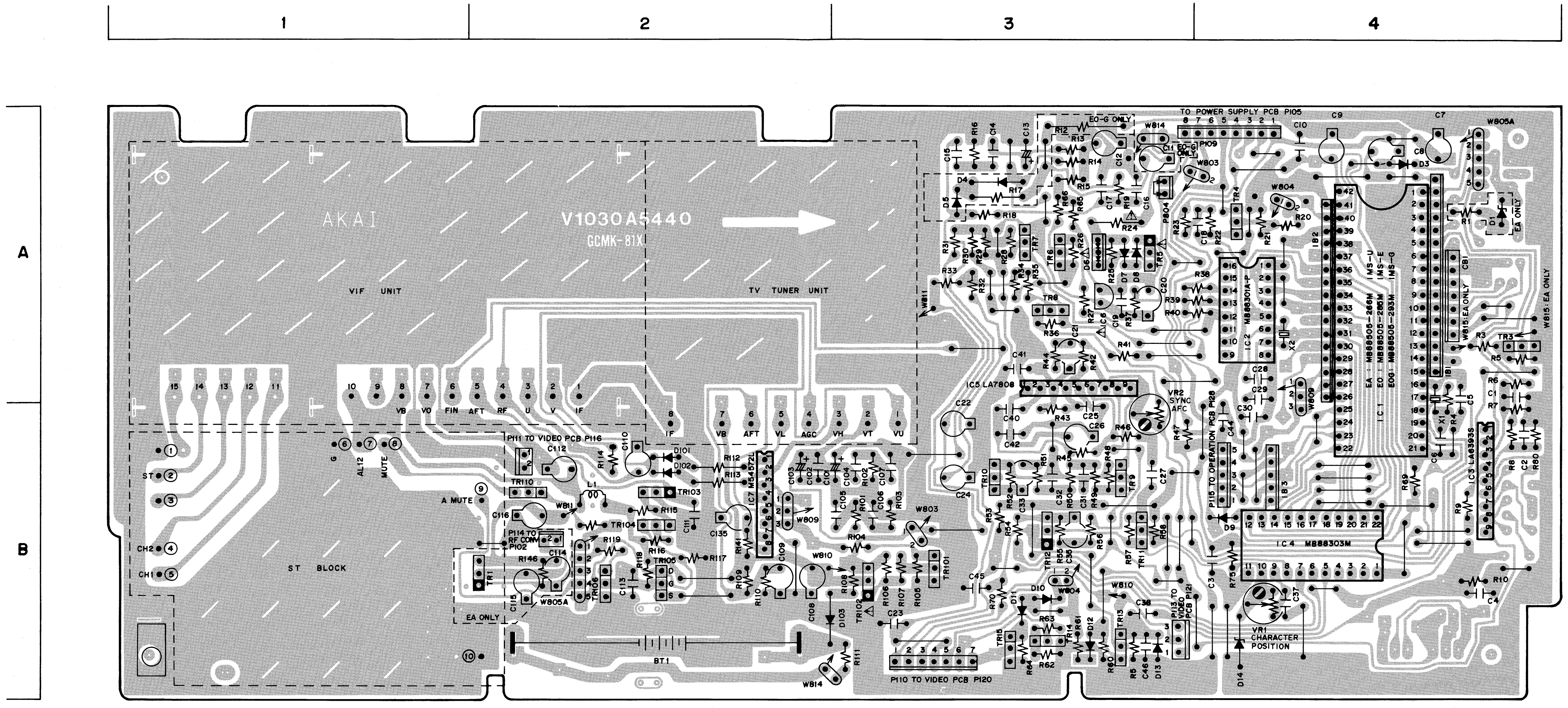
AVERTISSEMENT: ⚠ IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDEES PAR LE FABRICANT.

VOLTAGES INDICATED ARE MEASURED AT UHF 38CH TUNED WITH DIGITAL VOLTMETER (DC)

NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS 1/6W(J)
ALL CAPACITORS IN μF 50 WV(J)

VS-606EA/EO
VS-607EO-G
DEMODULATOR
SCHEMATIC DIAGRAM

NO.20-11 850507B


1
2
3
4
A
B
AKAI
V1030A5440
GCMK-81X
VIF UNIT
TV TUNER UNIT
ST BLOCK
VB
VO
FIN
AFT
RF
U
V
IF
AGC
VH
VT
VU
VL
G
AL12
MUTE
A MUTE
ST
CH2
CH1
EA ONLY
P111 TO VIDEO PCB P116
P114 TO RF CONV P102
BT1
TO POWER SUPPLY PCB P105
EO-G ONLY
IC5 LA7808
IC7 M54572L
IC2 MB8830IA-P
IC1
EA : MB88505-266M
EO : MB88505-285M
EOG : MB88505-293M
IC3 LA6393S
IC4 MB88303M
VR2 SYNC AFC
VR1 CHARACTER POSITION
P115 TO OPERATION PCB P128
P113 TO VIDEO PCB P121
P110 TO VIDEO PCB P120
W815 : EA ONLY

DEMODULATOR PCB V1030A5440

LOCATION OF COMPONENTS

〈IC〉		〈TR〉		〈TERMINAL〉	
IC1	A4	TR1	B1	P109	A4
IC2	A4	TR3,4	A4	P110	B3
IC3	B4	TR5 to 8	A3	P111	B1
IC4	B4	TR9 to 15	B3	P113	B3
IC5	B3	TR101	B3	P114	B2
IC6	A3	TR102 to 106	B2	P115	B4
IC7	B2	TR110	B1		

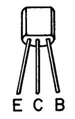
TR1, 3, 4, 6 to 11, 13 to 15, 101, 104 106, 110	2SC2603 (E,F)
TR5	2SA1283 (D,E)
TR12, 103	2SA1115 (D,E,F)
TR102	2SA1286 (G,H,J)
TR105	2SK363 (GR,BL)

■●● = PNP TRANSISTOR

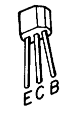
●●● = NPN TRANSISTOR

WARNING: ⚠INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY,
REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S
RECOMMENDED PARTS

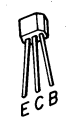
AVERTISSEMENT: ⚠IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ.
POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL,
NE REMPLACER QUE DES PIÈCES RECOMMANDEES PAR LE FABRICANT



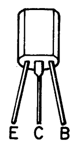
2SD1302



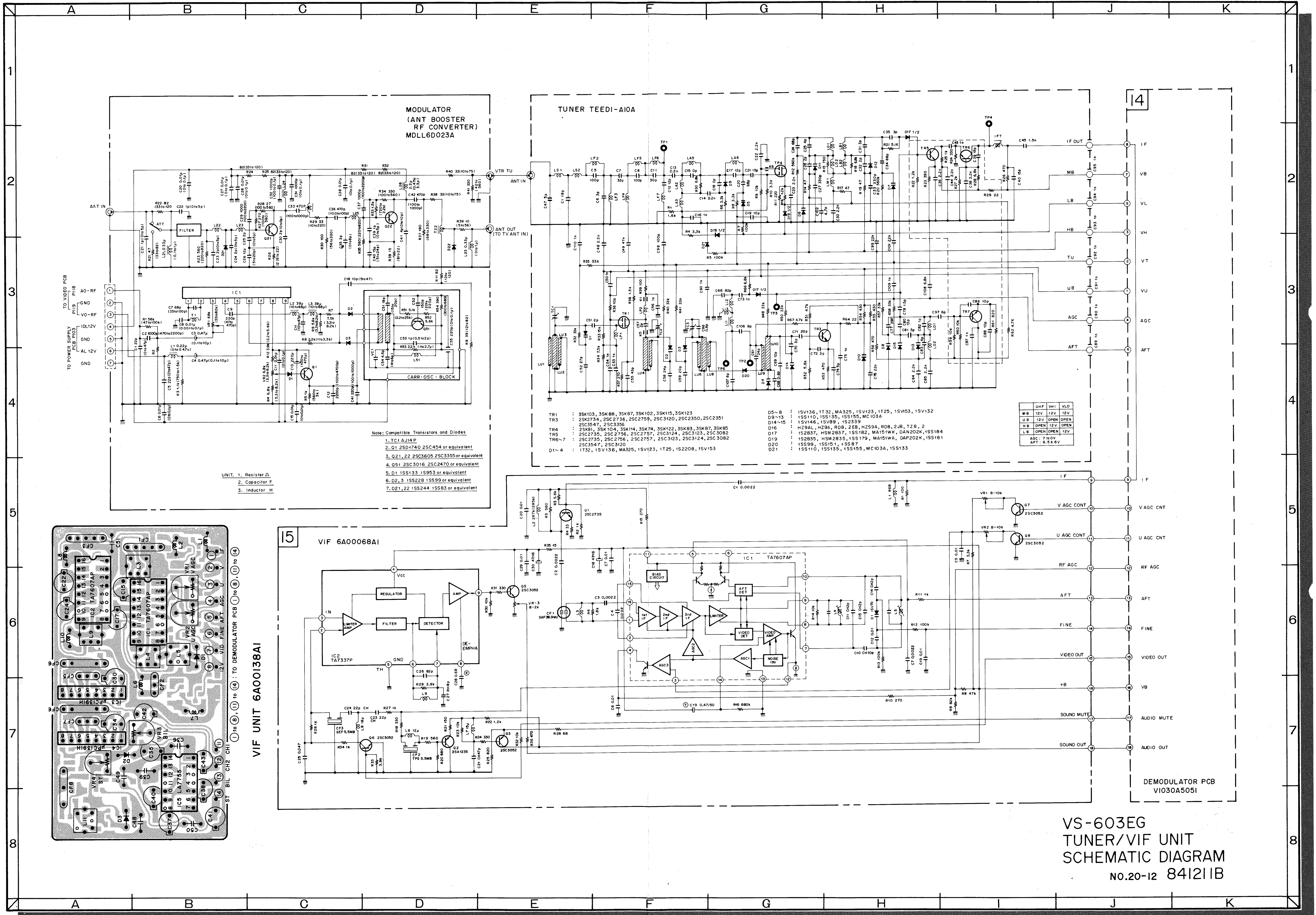
2SA1115
2SC2603



2SC3401
2SC3402



2SA1286


MODULATOR
(ANT BOOSTER
RF CONVERTER)
MDLL6D023A
ANT IN
VTR TU
ANT OUT
(TO TV ANT IN)
FILTER
ATT
IC1
CARR·OSC·BLOCK
TO VIDEO PCB P118 P119
AO-RF
GND
VO-RF
TO POWER SUPPLY PCB P103
IDL12V
GND
AL 12V
GND
TUNER TEEDI-A10A
IF OUT
MB
LB
HB
TU
UB
AGC
AFT
14
DEMODULATOR PCB
V1030A5051
15
VIF 6A00068A1
IC2 TA7337P
LIMITER AMP
REGULATOR
FILTER
DETECTOR
AMP
DE-EMPHA
IC1 TA7607AP
BIAS CIRCUIT
AFT DET
VIDEO DET
VIDEO AMP
NOISE INV
AGC1
AGC2
AGC3
IF
V AGC CONT
U AGC CONT
RF AGC
FINE
VIDEO OUT
+B
SOUND MUTE
SOUND OUT
VB
AUDIO MUTE
AUDIO OUT
VIF UNIT 6A00138A1
(1) to (8), (11) to (14) : TO DEMODULATOR PCB (1) to (8), (11) to (14)

	UHF	VHI	VLO
MB	12V	12V	12V
UB	12V	OPEN	OPEN
HB	OPEN	12V	OPEN
LB	OPEN	OPEN	12V
AGC : 7 to 0V AFT : 6.5 ± 6V			

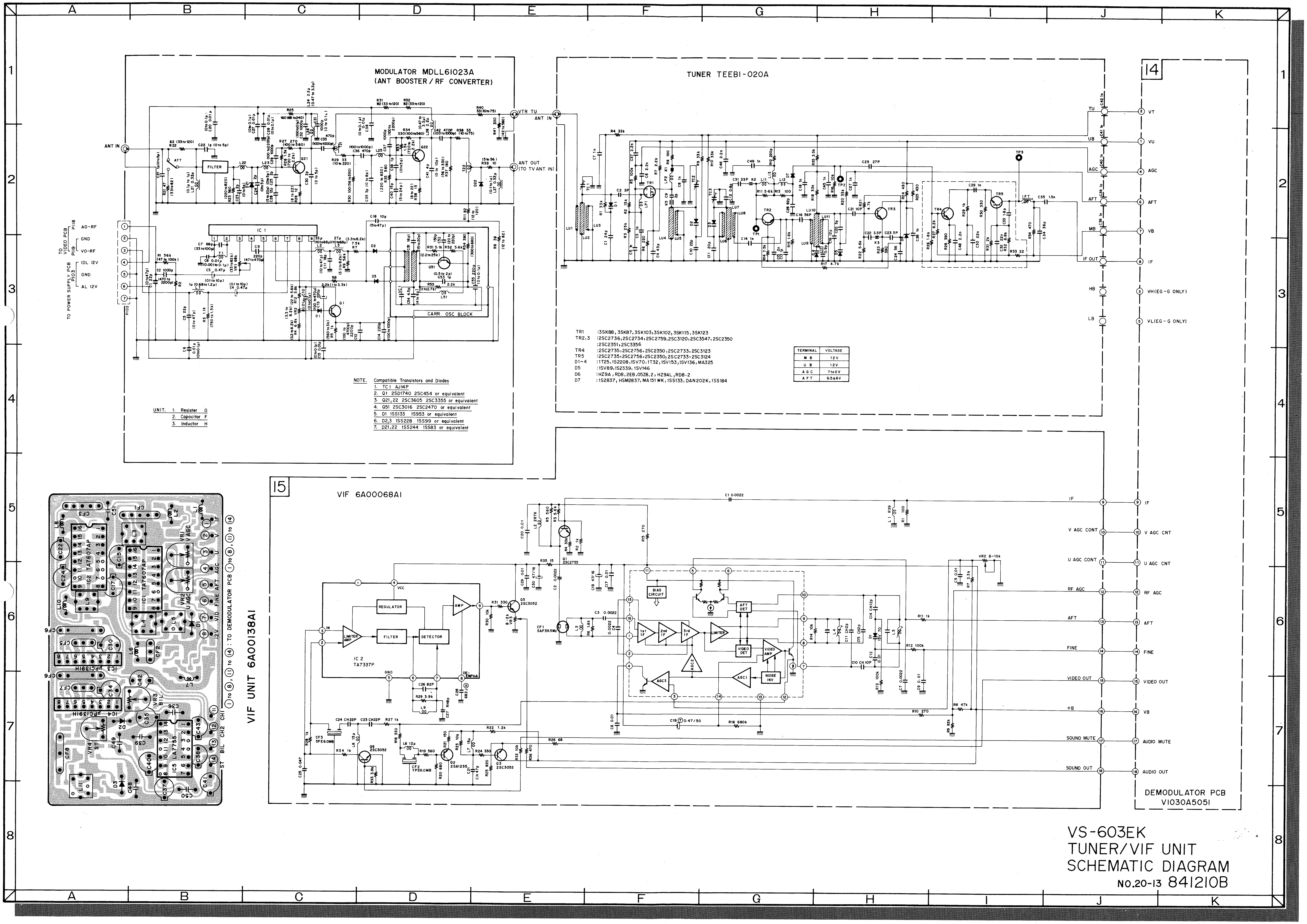
TR1 : 3SK103, 3SK88, 3SK87, 3SK102, 3SK115, 3SK123
TR3 : 2SK2734, 2SC2736, 2SC2759, 2SC3120, 2SC2350, 2SC2351 2SC3547, 2SC3356
TR4 : 2SK81, 3SK104, 3SK114, 3SK74, 3SK122, 3SK83, 3SK87, 3SK85
TR5 : 2SC2735, 2SC2756, 2SC2757, 2SC3124, 2SC3123, 2SC3082
TR6~7 : 2SC2735, 2SC2756, 2SC2757, 2SC3123, 2SC3124, 2SC3082 2SC3547, 2SC3120
D1~4 : 1T32, 1SV136, MA325, 1SV123, 1T25, 1S2208, 1SV153
D5~8 : 1SV136, 1T32, MA325, 1SV123, 1T25, 1SV153, 1SV132
D9~13 : 1SS110, 1SS135, 1SS155, MC103A
D14~15 : 1SV146, 1SV89, 1S2339
D16 : HZ9AL, HZ9A, RD8, 2EB, HZS9A, RD8, 2JB, TZ8, 2
D17 : 1S2837, HSM2837, 1SS182, MA151WK, DAN202K, 1SS184
D19 : 1S2835, HSM2835, 1SS179, MA151WA, DAP202K, 1SS181
D20 : 1SS99, 1SS151, 1SS87
D21 : 1SS110, 1SS135, 1SS155, MC103A, 1SS133

Note: Compatible Transistors and Diodes
1. TC1 AJ14P
2. Q1 2SD1740 2SC454 or equivalent
3. Q21, 22 2SC3605 2SC3355 or equivalent
4. Q51 2SC3016 2SC2470 or equivalent
5. D1 1SS133 1S953 or equivalent
6. D2, 3 1SS228 1SS99 or equivalent
7. D21, 22 1SS244 1SS83 or equivalent

UNIT. 1. Resister Ω
2. Capacitor F
3. Inductor H

VS-603EG
TUNER/VIF UNIT
SCHEMATIC DIAGRAM

NO.20-12 841211B


MODULATOR MDLL61023A
(ANT BOOSTER / RF CONVERTER)
ANT IN
VTR TU
ANT IN
ANT OUT
(TO TV ANT IN)
FILTER
ATT
IC 1
CARR. OSC BLOCK
TO VIDEO PCB P118
AO-RF
GND
P119
VO-RF
TO POWER SUPPLY PCB P103
IDL 12V
GND
AL 12V
P102
TUNER TEEBI-020A
TP1
TP2
TP3
TU
UB
AGC
AFT
MB
IF OUT
HB
LB
14
VT
VU
AGC
AFT
VB
IF
VH(EG-G ONLY)
VL(EG-G ONLY)
15
VIF 6A00068A1
IC 2
TA7337P
REGULATOR
LIMITER AMP
FILTER
DETECTOR
AMP
DE EMPHA
BIAS CIRCUIT
AFT DET
VIDEO DET
VIDEO AMP
NOISE INV
AGC1
AGC2
AGC3
IF
V AGC CONT
U AGC CONT
RF AGC
AFT
FINE
VIDEO OUT
+B
SOUND MUTE
SOUND OUT
V AGC CNT
U AGC CNT
RF AGC
AFT
FINE
VIDEO OUT
VB
AUDIO MUTE
AUDIO OUT
DEMODULATOR PCB
V1030A5051
VIF UNIT 6A00138A1
①to⑧, ⑪to⑭ : TO DEMODULATOR PCB ①to⑧, ⑪to⑭
TA7607AP
μPC1391H
LA7755
VR1 V AGC
VR2 U AGC
VR3 BIL
VR4 ST
ST BIL CH2 CH1
12V VID FINE AFT AGC U V IF

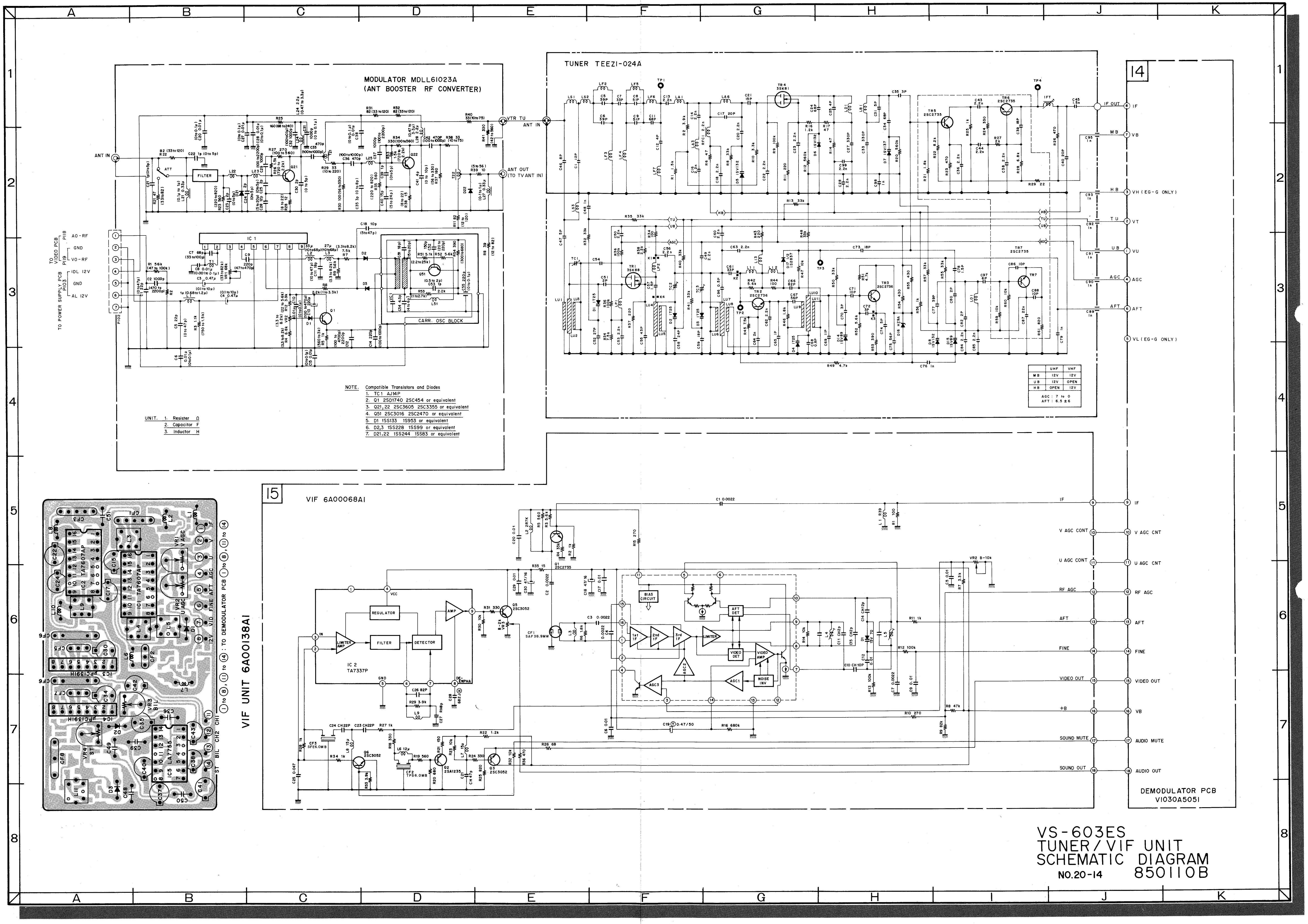
TR1 :3SK88, 3SK87, 3SK103, 3SK102, 3SK115, 3SK123
TR2,3 :2SC2736, 2SC2734, 2SC2759, 2SC3120, 2SC3547, 2SC2350
:2SC2351, 2SC3356
TR4 :2SC2735, 2SC2756, 2SC2350, 2SC2733, 2SC3123
TR5 :2SC2735, 2SC2756, 2SC2350, 2SC2733, 2SC3124
D1~4 :1T25, 1S2208, 1SV70, 1T32, 1SV153, 1SV136, MA325
D5 :1SV89, 1S2339, 1SV146
D6 :HZ9A, RD8, 2EB, 05Z8.2, HZ9AL, RD8·2
D7 :1S2837, HSM2837, MA151WK, 1SS133, DAN202K, 1SS184

TERMINAL	VOLTAGE
M B	12V
U B	12V
A G C	7to0V
A F T	6.5±6V

NOTE. Compatible Transistors and Diodes
1. TC1 AJ14P
2. Q1 2SD1740 2SC454 or equivalent
3. Q21,22 2SC3605 2SC3355 or equivalent
4. Q51 2SC3016 2SC2470 or equivalent
5. D1 1SS133 1S953 or equivalent
6. D2,3 1SS228 1SS99 or equivalent
7. D21,22 1SS244 1SS83 or equivalent

UNIT. 1. Resister Ω
2. Capacitor F
3. Inductor H

VS-603EK
TUNER/VIF UNIT
SCHEMATIC DIAGRAM
NO.20-13 841210B


MODULATOR MDLL61023A
(ANT BOOSTER RF CONVERTER)
TUNER TEEZ1-024A
VIF 6A00068A1
VIF UNIT 6A00138A1
①to⑧, ⑪to⑭ : TO DEMODULATOR PCB ①to⑧, ⑪to⑭
DEMODULATOR PCB
V1030A5051
TO VIDEO PCB P118
TO POWER SUPPLY PCB P103
P102
AO-RF
GND
VO-RF
IDL 12V
GND
AL 12V
ANT IN
VTR TU
ANT IN
ANT OUT
(TO TV ANT IN)
IF OUT
IF
VB
VH (EG-G ONLY)
VT
VU
AGC
AFT
VL (EG-G ONLY)
V AGC CNT
U AGC CNT
RF AGC
FINE
VIDEO OUT
AUDIO MUTE
AUDIO OUT
V AGC CONT
U AGC CONT
SOUND MUTE
SOUND OUT
CARR. OSC BLOCK
IC 1
IC 2
TA7337P
FILTER
REGULATOR
DETECTOR
AMP
LIMITER AMP
BIAS CIRCUIT
AFT DET
VIDEO DET
VIDEO AMP
NOISE INV
AGC1
AGC2
AGC3
14
15
A
B
C
D
E
F
G
H
I
J
K
1
2
3
4
5
6
7
8

NOTE. Compatible Transistors and Diodes
1. TC1 AJ14P
2. Q1 2SD1740 2SC454 or equivalent
3. Q21,22 2SC3605 2SC3355 or equivalent
4. Q51 2SC3016 2SC2470 or equivalent
5. D1 1SS133 1S953 or equivalent
6. D2,3 1SS228 1SS99 or equivalent
7. D21,22 1SS244 1SS83 or equivalent

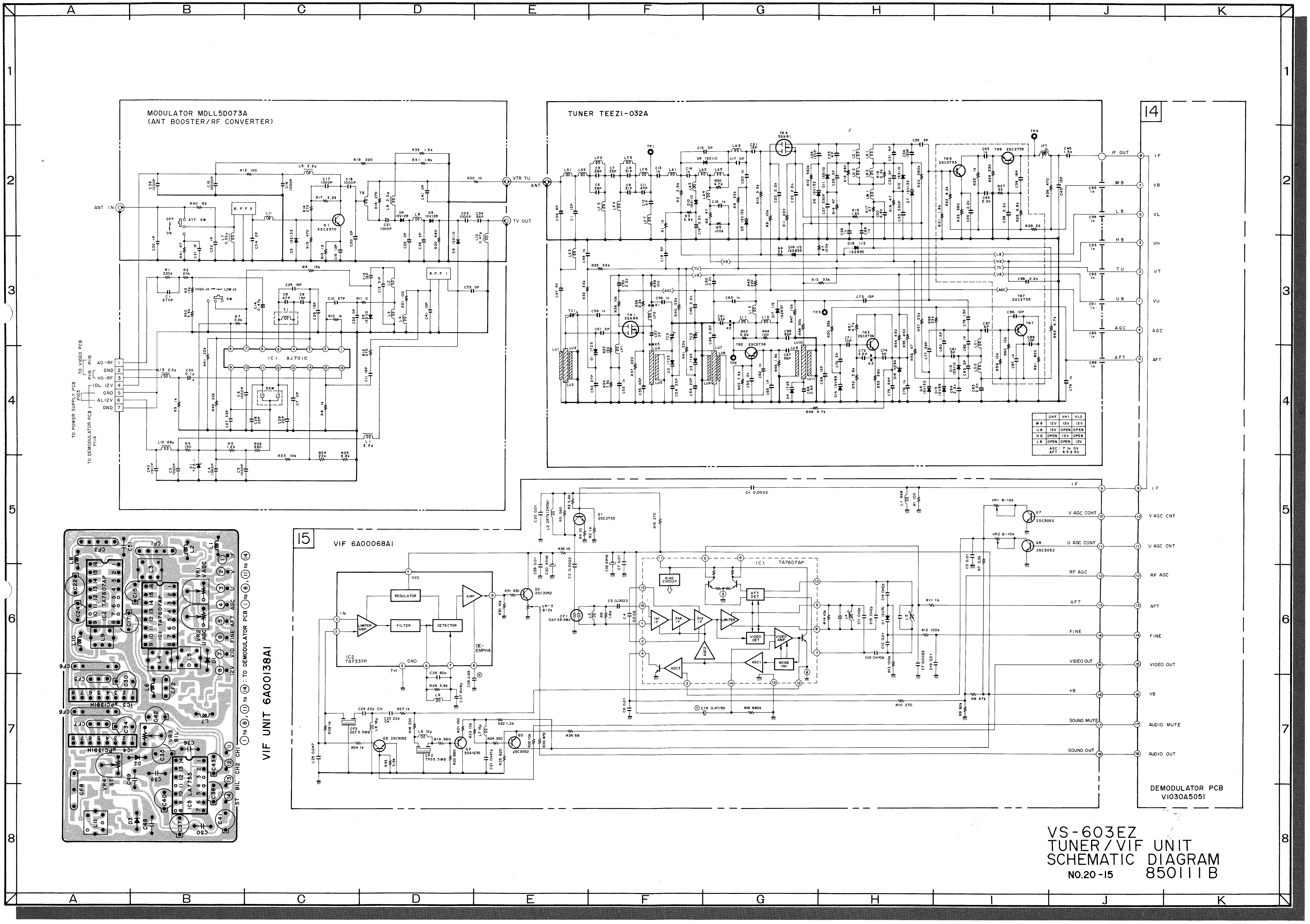
UNIT. 1. Resister Ω
2. Capacitor F
3. Inductor H

	UHF	VHF
MB	12V	12V
UB	12V	OPEN
HB	OPEN	12V

AGC : 7 to 0
AFT : 6.5 ± 6

VS-603ES
TUNER / VIF UNIT
SCHEMATIC DIAGRAM

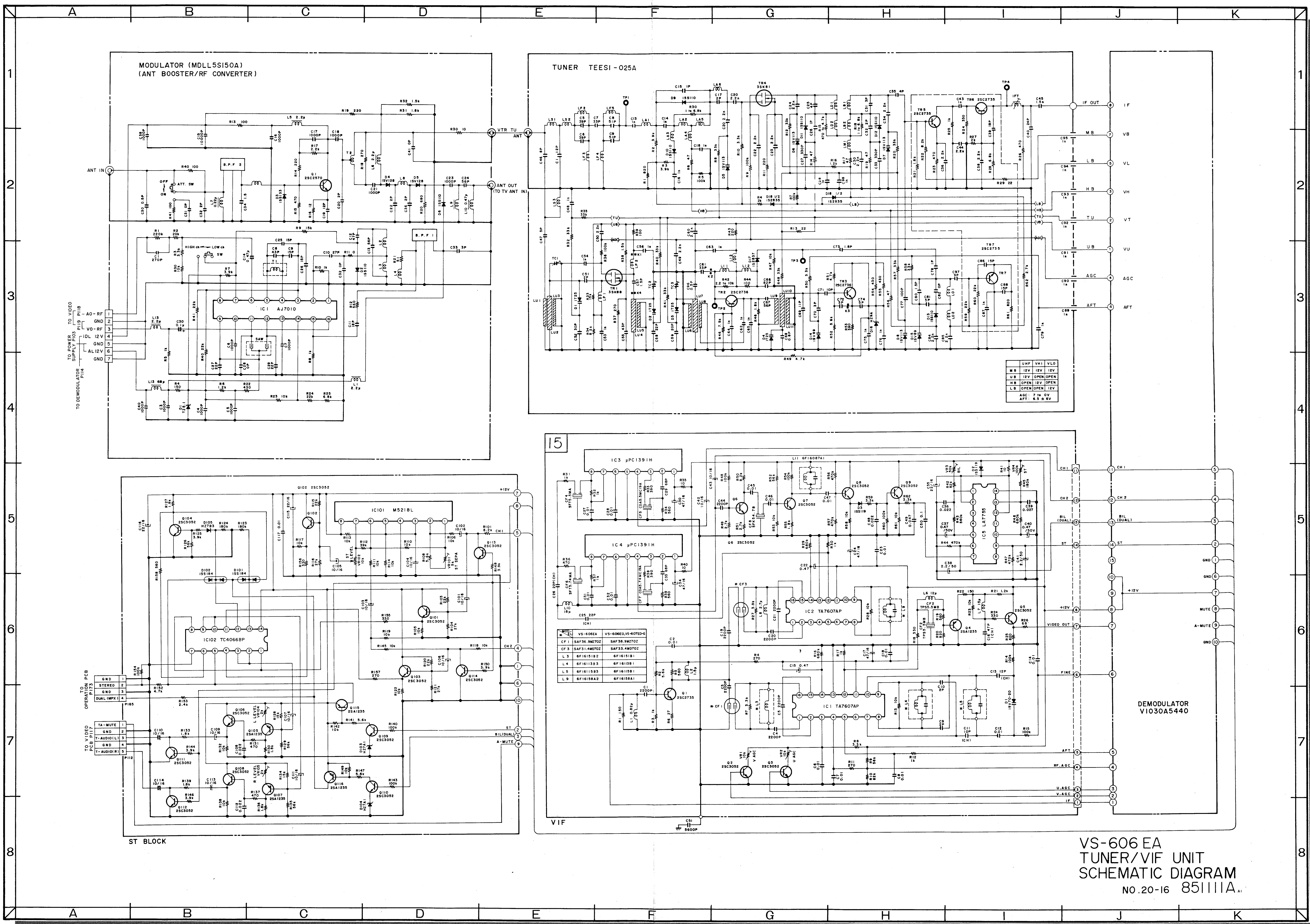
NO.20-14 850110B


MODULATOR MDLL5D073A
(ANT BOOSTER/RF CONVERTER)
ANT IN
VTR TU
TV OUT
IC1 AJ7010
B.P.F 2
B.P.F 1
SAW
TO VIDEO PCB P118
TO POWER SUPPLY PCB P103
TO DEMODULATOR PCB P114
AO-RF
GND
VO-RF
IDL 12V
GND
AL12V
GND
TUNER TEEZ1-032A
ANT
TR1 3SK88
TR2 2SC2736
TR3 2SC2736
TR4 3SK81
TR5 2SC2735
TR6 2SC2735
TR7 2SC2735
TP1
TP2
TP3
TP4
IFT
IF OUT
MB
LB
HB
TU
UB
AGC
AFT
14
IF
VB
VL
VH
VT
VU
15
VIF 6A00068A1
IC2 TA7337P
LIMITER AMP
REGULATOR
FILTER
DETECTOR
AMP
DE-EMPHA
IC1 TA7607AP
BIAS CIRCUIT
1st IF
2nd IF
3rd IF
LIMITER
AFT DET
VIDEO DET
VIDEO AMP
AGC1
AGC2
AGC3
NOISE INV
CF1 SAF38.9MZ
CF2 TPS5.5MB
CF3 SEF5.5MB
Q1 2SC2735
Q2 2SA1235
Q3 2SC3052
Q5 2SC3052
Q6 2SC3052
Q7 2SC3052
Q8 2SC3052
VR1 B-10k
VR2 B-40k
V AGC CONT
U AGC CONT
RF AGC
AFT
FINE
VIDEO OUT
+B
SOUND MUTE
SOUND OUT
V AGC CNT
U AGC CNT
AUDIO MUTE
AUDIO OUT
DEMODULATOR PCB
V1030A5051
IC1 TA7607AP
IC2 TA7607AP
IC3 μPC1391H
IC4 μPC1391H
IC5 LA7755
VIF UNIT 6A00138A1
① to ⑧, ⑪ to ⑭ : TO DEMODULATOR PCB ① to ⑧, ⑪ to ⑭
12V VID FINE AFT AGC U V IF
ST BIL CH2 CH1
A B C D E F G H I J K
1 2 3 4 5 6 7 8

	UHF	VH1	VLO
MB	12V	12V	12V
UB	12V	OPEN	OPEN
HB	OPEN	12V	OPEN
LB	OPEN	OPEN	12V
AGC : 7 to 0V AFT : 6.5 ± 6V			

VS-603EZ
TUNER / VIF UNIT
SCHEMATIC DIAGRAM

NO.20-15 850111 B

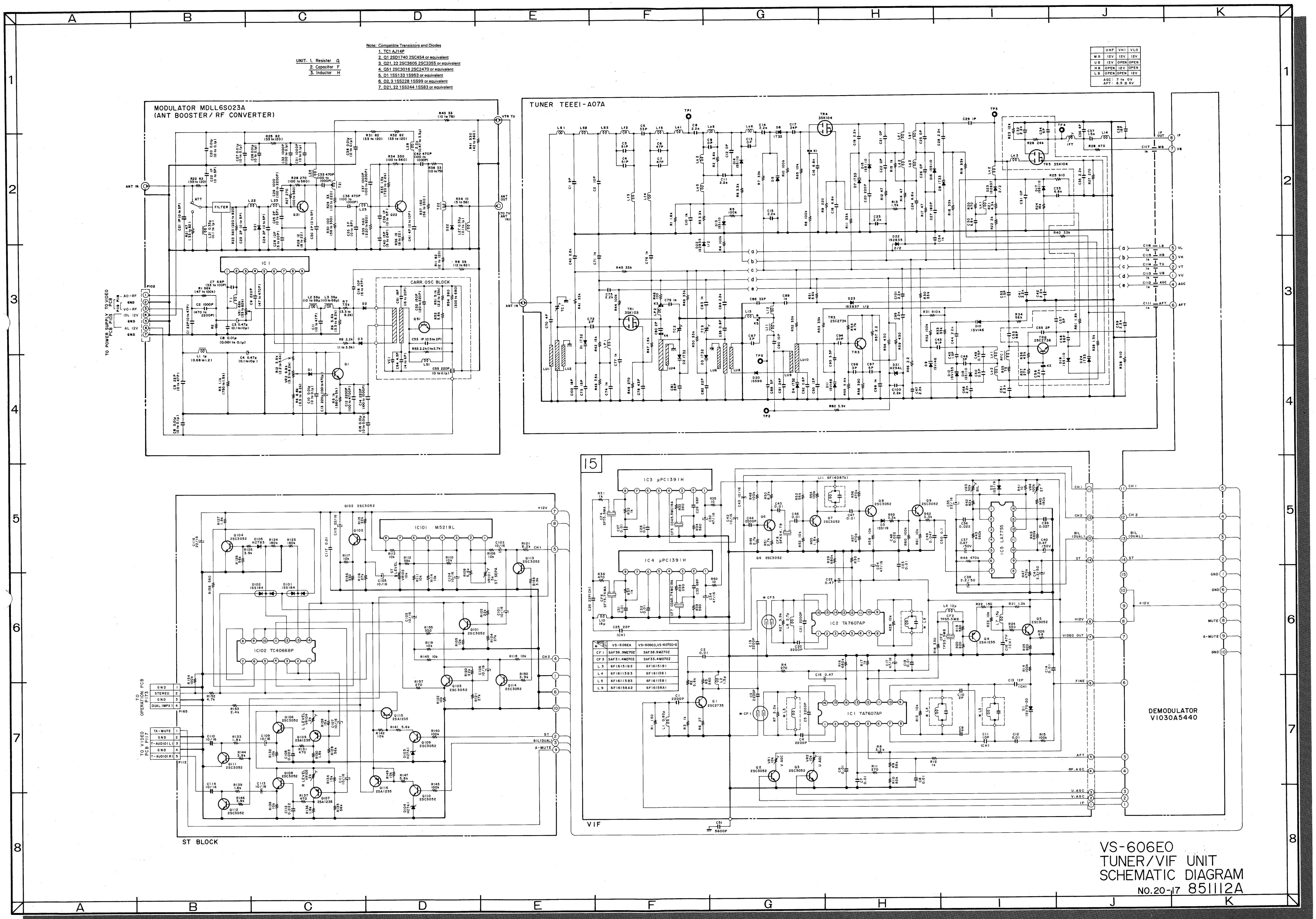

MODULATOR (MDLL5S150A)
(ANT BOOSTER/RF CONVERTER)
TUNER TEES1-025A
ANT IN
VTR TU ANT
ANT OUT (TO TV ANT IN)
IC1 AJ7010
SAW
B.P.F 1
B.P.F 2
TO VIDEO P119 P118
TO POWER SUPPLY P103
TO DEMODULATOR P114
AO-RF
GND
VO-RF
IDL 12V
GND
AL12V
GND
IF OUT
IF
VB
VL
VH
VT
VU
AGC
AFT
IC101 M5218L
IC102 TC4066BP
ST BLOCK
TO OPERATION PCB P173
STEREO
DUAL (MPX)
TO VIDEO PCB P117
TA-MUTE
T-AUDIO(L)
T-AUDIO(R)
15
IC3 μPC1391H
IC4 μPC1391H
IC1 TA7607AP
IC2 TA7607AP
IC5 LA7755
VIF
DEMODULATOR V1030A5440
CH1
CH2
BIL (DUAL)
ST
+12V
VIDEO OUT
FINE
AFT
RF.AGC
U.AGC
V.AGC
IF
MUTE
A-MUTE
GND
A
B
C
D
E
F
G
H
I
J
K
1
2
3
4
5
6
7
8

	UHF	VHI	VLO
MB	12V	12V	12V
UB	12V	OPEN	OPEN
HB	OPEN	12V	OPEN
LB	OPEN	OPEN	12V

AGC: 7 to 0V
AFT: 6.5 ± 6V

* MODEL	VS-606EA	VS-606E0,VS-607E0-G
CF1	SAF36.9MZ70Z	SAF38.9MZ70Z
CF3	SAF31.4MD70Z	SAF33.4MD70Z
L3	6F16151B2	6F16151B1
L4	6F16113B3	6F16113B1
L5	6F16115B3	6F16115B1
L9	6F16158A2	6F16158A1

VS-606EA
TUNER/VIF UNIT
SCHEMATIC DIAGRAM
NO.20-16 851111A


MODULATOR MDLL6S023A
(ANT BOOSTER/ RF CONVERTER)
TUNER TEEEI-A07A
CARR. OSC BLOCK
IC1
ANT IN
VTR TU
ANT OUT
(TO TV ANT IN)
TO POWER SUPPLY TO VIDEO PCB P103 P102
15
IC3 μPC1391H
IC4 μPC1391H
IC2 TA7607AP
IC1 TA7607AP
IC5 LA7755
VIF
IC101 M5218L
IC102 TC4066BP
ST BLOCK
TO OPERATION PCB P173
TO VIDEO PCB P117
DEMODULATOR
V1030A5440
CH 1
CH 2
BIL (DUAL)
ST
GND
+12V
MUTE
A-MUTE
VIDEO OUT
FINE
AFT
RF.AGC
U.AGC
V.AGC
IF
A
B
C
D
E
F
G
H
I
J
K
1
2
3
4
5
6
7
8

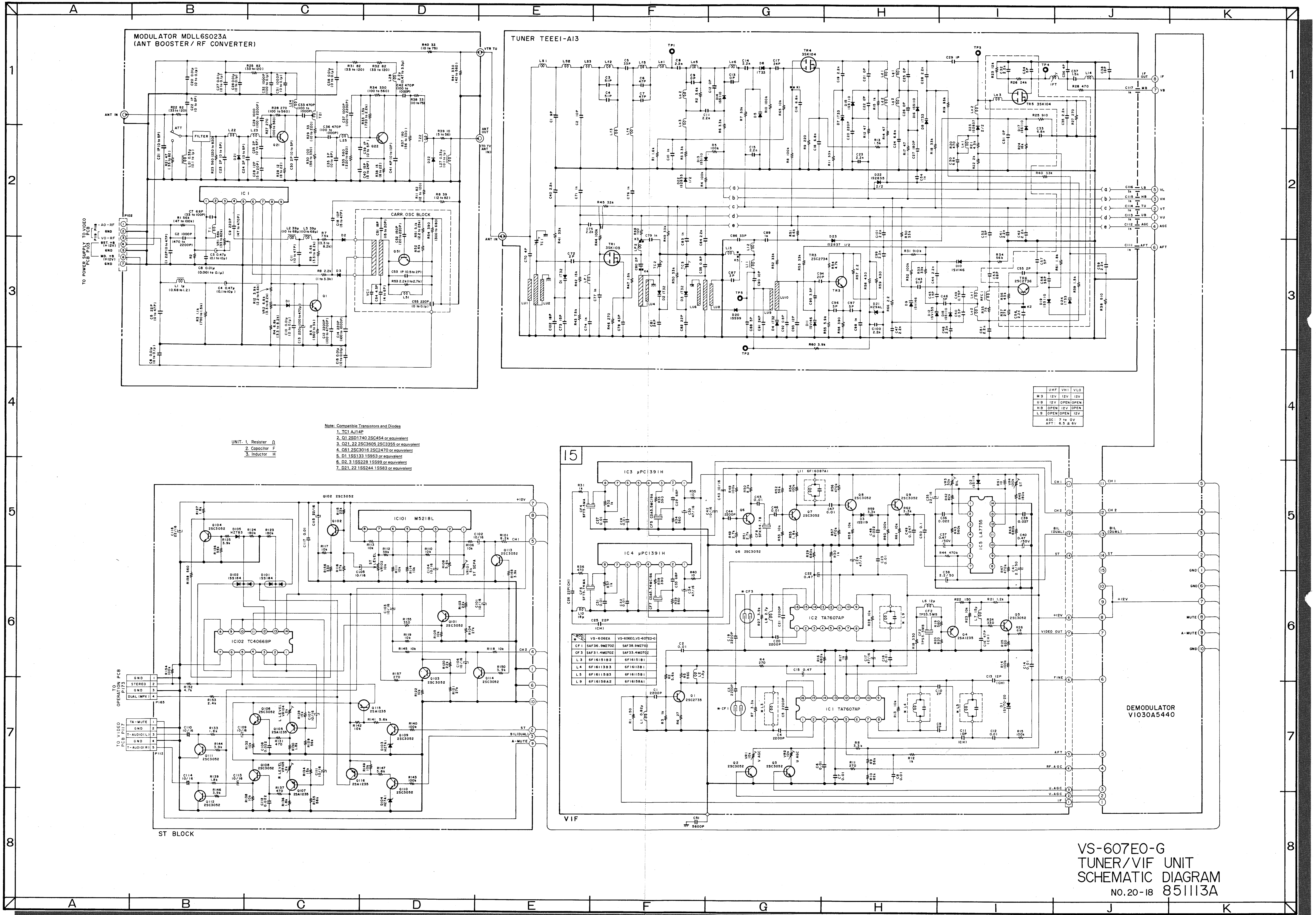
UNIT- 1. Resister Ω
2. Capacitor F
3. Inductor H

Note: Compatible Transistors and Diodes
1. TC1 AJ14P
2. Q1 2SD1740 2SC454 or equivalent
3. Q21, 22 2SC3605 2SC3355 or equivalent
4. Q51 2SC3016 2SC2470 or equivalent
5. D1 1SS133 1S953 or equivalent
6. D2, 3 1SS228 1SS99 or equivalent
7. D21, 22 1SS244 1SS83 or equivalent

	UHF	VHI	VLO
M B	12V	12V	12V
U B	12V	OPEN	OPEN
H B	OPEN	12V	OPEN
L B	OPEN	OPEN	12V
AGC: 7 to 0V AFT: 6.5 ± 6V			

* MODEL	VS-606EA	VS-606EO,VS-607EO-G
CF 1	SAF36.9MZ70Z	SAF38.9MZ70Z
CF 3	SAF31.4MD70Z	SAF33.4MD70Z
L 3	6F16151B2	6F16151B1
L 4	6F16113B3	6F16113B1
L 5	6F16115B3	6F16115B1
L 9	6F16158A2	6F16158A1

VS-606EO
TUNER/VIF UNIT
SCHEMATIC DIAGRAM
NO.20-17 851112A


MODULATOR MDLL6S023A
(ANT BOOSTER/ RF CONVERTER)
TUNER TEEE1-A13
CARR. OSC BLOCK
IC1
ANT IN
ANT OUT
VTR TU
TO POWER SUPPLY TO VIDEO PCB P102
TO OPERATION PCB
TO VIDEO PCB
IC101 M5218L
IC102 TC4066BP
ST BLOCK
15
IC3 μPC1391H
IC4 μPC1391H
IC2 TA7607AP
IC1 TA7607AP
IC5 LA7755
VIF
DEMODULATOR
V1030A5440
TR4 3SK104
TR5 3SK104
TR1 3SK103
TR3 2SC2734
TR6 2SC2736
A
B
C
D
E
F
G
H
I
J
K
1
2
3
4
5
6
7
8

UNIT. 1. Resister Ω
2. Capacitor F
3. Inductor H

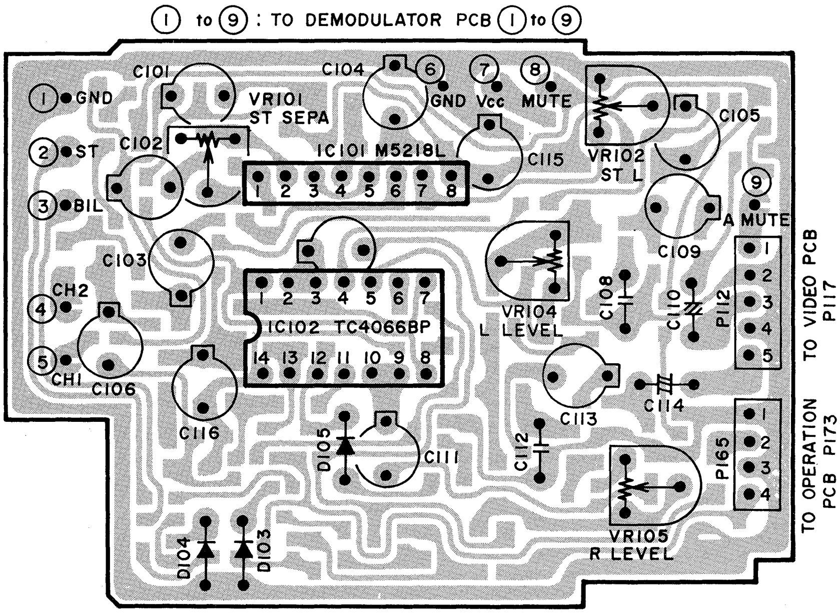
Note: Compatible Transistors and Diodes
1. TC1 AJ14P
2. Q1 2SD1740 2SC454 or equivalent
3. Q21, 22 2SC3605 2SC3355 or equivalent
4. Q51 2SC3016 2SC2470 or equivalent
5. D1 1SS133 1S953 or equivalent
6. D2, 3 1SS228 1SS99 or equivalent
7. D21, 22 1SS244 1SS83 or equivalent

	UHF	VH1	VLO
M B	12V	12V	12V
U B	12V	OPEN	OPEN
H B	OPEN	12V	OPEN
L B	OPEN	OPEN	12V

AGC: 7 to 0V
AFT: 6.5 ± 6V

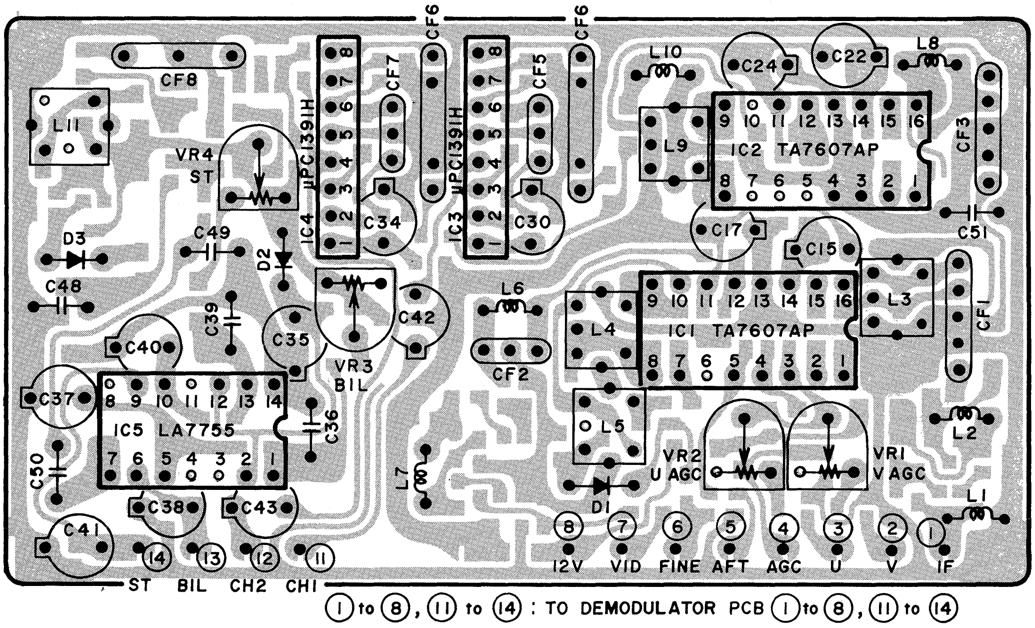
* MOD-EL	VS-606EA	VS-606E0,VS-607E0-G
CF 1	SAF36.9MZ70Z	SAF38.9MZ70Z
CF 3	SAF31.4MD70Z	SAF33.4MD70Z
L 3	6F16151B2	6F16151B1
L 4	6F16113B3	6F16113B1
L 5	6F16115B3	6F16115B1
L 9	6F16158A2	6F16158A1

VS-607E0-G
TUNER/VIF UNIT
SCHEMATIC DIAGRAM
NO. 20-18 851113A


① to ⑨ : TO DEMODULATOR PCB ① to ⑨
① GND
② ST
③ BIL
④ CH2
⑤ CH1
⑥ GND
⑦ Vcc
⑧ MUTE
⑨ A MUTE
C101
C102
C103
C104
C105
C106
C108
C109
C110
C111
C112
C113
C114
C115
C116
VR101 ST SEPA
VR102 ST L
VR104 L LEVEL
VR105 R LEVEL
IC101 M5218L
IC102 TC4066BP
D103
D104
D105
P112
P165
TO VIDEO PCB P117
TO OPERATION PCB P173

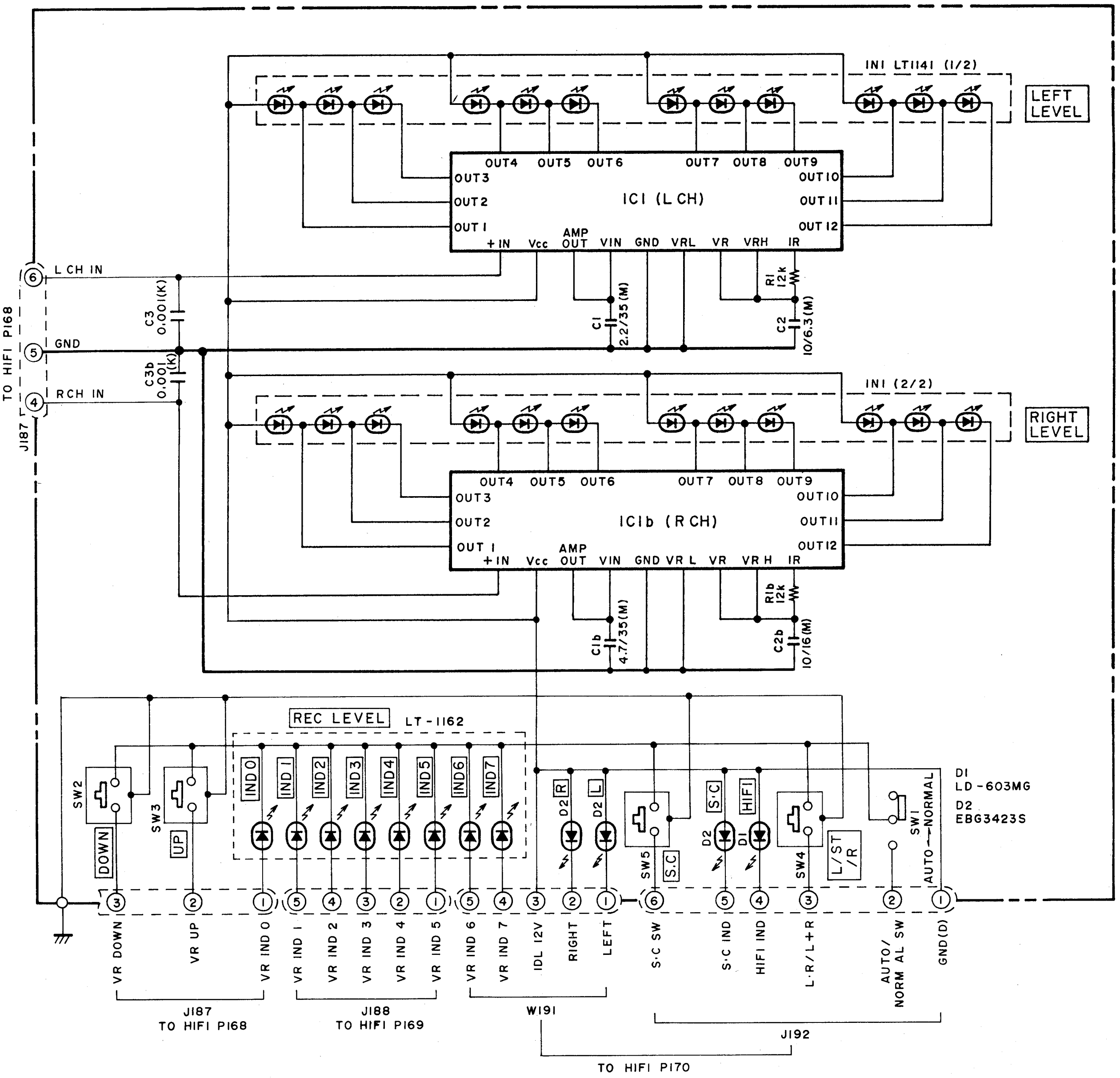
ST BLOCK 6A00151A2

NOTE: CHIP PARTS (C, R) ARE NOT SHOWN ON THESE PATTERNS


CF8
L11
VR4 ST
D3
C48
C49
D2
C39
C40
C35
C37
IC5 LA7755
C50
C36
C38
C43
C41
IC4 µPC1391H
CF6
CF7
C34
VR3 BIL
C42
IC3 µPC1391H
CF5
C30
L6
CF2
L7
L10
C24
C22
L8
L9
IC2 TA7607AP
CF3
C17
C15
C51
L4
IC1 TA7607AP
L3
CF1
L5
VR2 U AGC
VR1 V AGC
D1
L2
L1
⑧ 12V
⑦ VID
⑥ FINE
⑤ AFT
④ AGC
③ U
② V
① IF
⑭ ST
⑬ BIL
⑫ CH2
⑪ CH1
① to ⑧, ⑪ to ⑭ : TO DEMODULATOR PCB ① to ⑧, ⑪ to ⑭

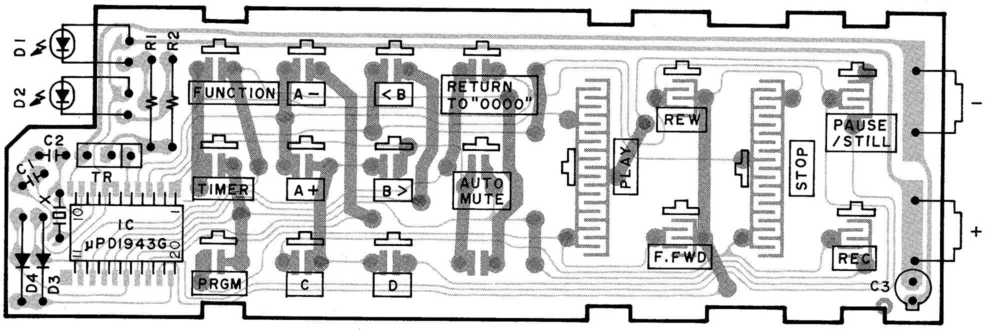
VIF UNIT 6A00138A1

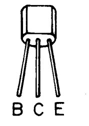
NOTE: CHIP PARTS (C, R) ARE NOT SHOWN ON THESE PATTERNS


IN1 LT1141 (1/2)
LEFT LEVEL
OUT4 OUT5 OUT6 OUT7 OUT8 OUT9
OUT3
OUT2
OUT 1
OUT10
OUT11
OUT12
IC1 (L CH)
+IN Vcc AMP OUT VIN GND VRL VR VRH IR
R1 12k
C1 2.2/35(M)
C2 10/6.3(M)
L CH IN
GND
R CH IN
C3 0.001(K)
C3b 0.001(K)
TO HIFI P168
J187
IN1 (2/2)
RIGHT LEVEL
IC1b (R CH)
R1b 12k
C1b 4.7/35(M)
C2b 10/16(M)
REC LEVEL
LT-1162
SW2
DOWN
SW3
UP
IND0
IND1
IND2
IND3
IND4
IND5
IND6
IND7
D2 R
D2 L
SW5
S.C
D2 S·C
D1 HIFI
SW4
L/ST /R
SW1
AUTO ⟷ NORMAL
D1 LD-603MG
D2 EBG3423S
VR DOWN
VR UP
VR IND 0
VR IND 1
VR IND 2
VR IND 3
VR IND 4
VR IND 5
VR IND 6
VR IND 7
IDL 12V
RIGHT
LEFT
S·C SW
S·C IND
HIFI IND
L·R/L+R
AUTO/ NORM AL SW
GND(D)
J187 TO HIFI P168
J188 TO HIFI P169
W191
J192
TO HIFI P170

VS-603EG/EK/ES/EZ
VS-606EA/EO
VS-607EO-G
LEVEL METER
SCHEMATIC DIAGRAM

NO.20-19 850112A(A3)

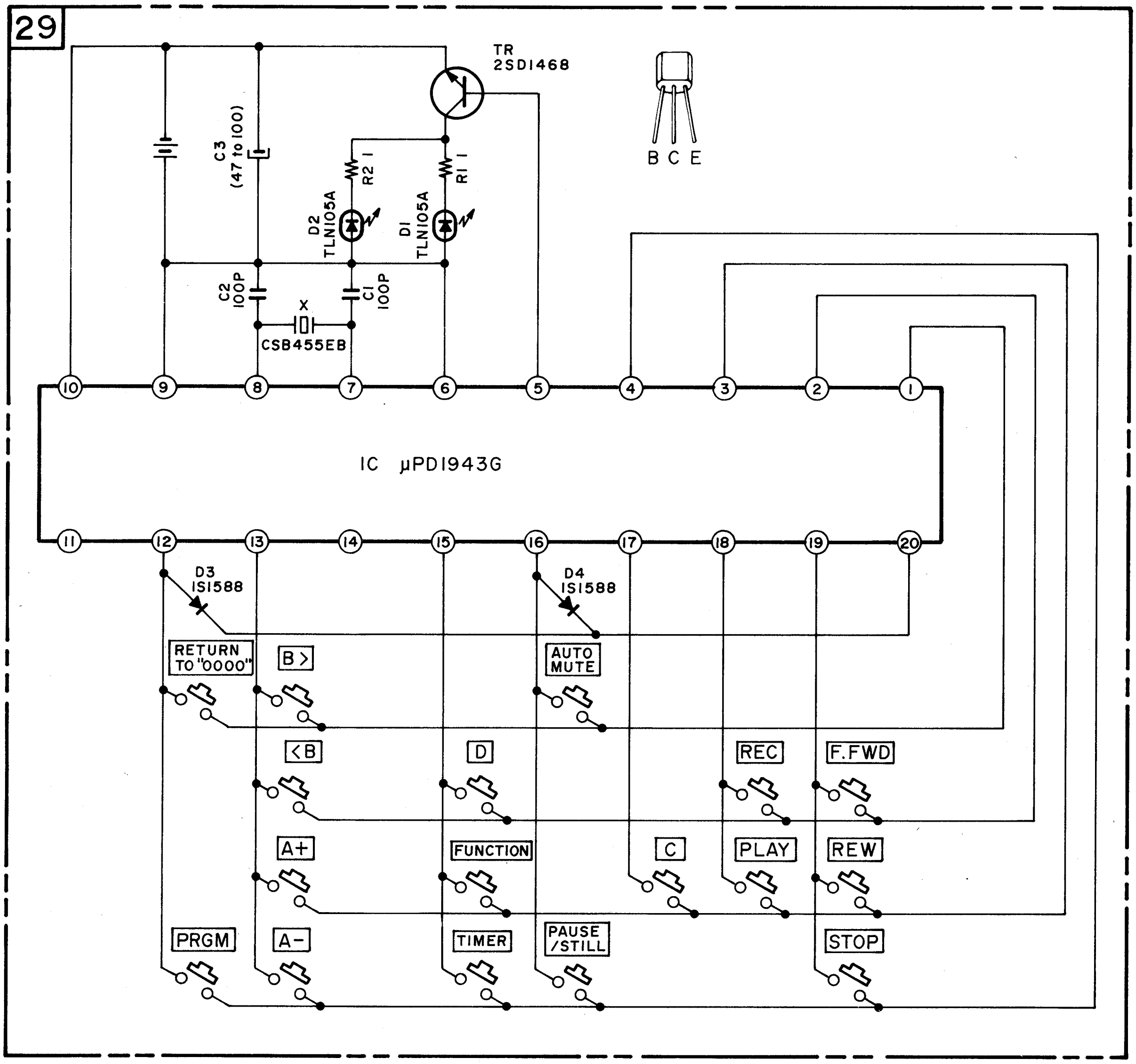

D1
D2
R1
R2
C2
C1
TR
X
10
1
IC
µPD1943G
11
20
D4
D3
FUNCTION
A−
<B
RETURN TO "0000"
TIMER
A+
B>
AUTO MUTE
PRGM
C
D
PLAY
REW
STOP
PAUSE /STILL
F.FWD
REC
C3
−
+



2SD1468

[● ● ●] = NPN TRANSISTOR

A+	PRESET SELECT +
A−	PRESET SELECT −
<B	FINE TUNE/TRACKING
B>	FINE TUNE/TRACKING
C	DISPLAY SELECT
D	COUNTER RESET


29
TR
2SD1468
B C E
C3
(47 to 100)
R2 1
R1 1
D2
TLN105A
D1
TLN105A
C2
100P
C1
100P
X
CSB455EB
10
9
8
7
6
5
4
3
2
1
IC µPD1943G
11
12
13
14
15
16
17
18
19
20
D3
1S1588
D4
1S1588
RETURN TO "0000"
B>
AUTO MUTE
<B
D
REC
F.FWD
A+
FUNCTION
C
PLAY
REW
PRGM
A−
TIMER
PAUSE /STILL
STOP

A+	CANNEL SELECT +
A−	CANNEL SELECT −
B>	FINE TUNE/TRACKING
<B	FINE TUNE/TRACKING
C	DISPLAY SELECT
D	COUNTER RESET

NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS 1/4W(J)
ALL CAPACITORS IN µF 50WV(J)

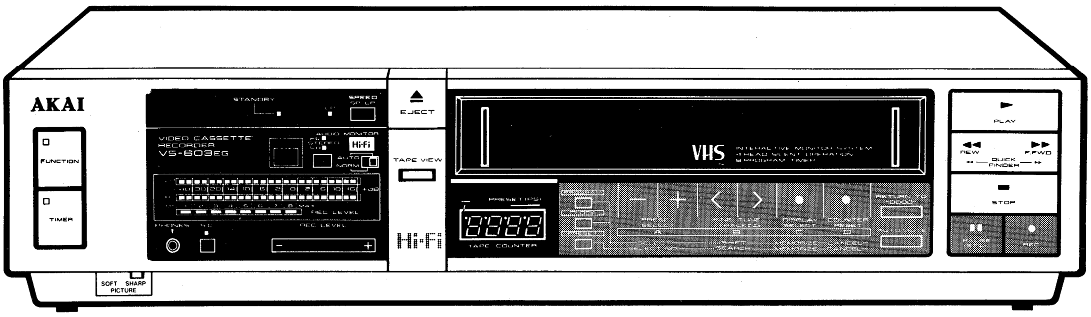
REMOTE CONTROL UNIT SCHEMATIC DIAGRAM

NO.20-20 841019C

VS-626EO

AKAI SERVICE MANUAL
(ADDITIONAL)

* This additional Schematic Diagram is made for the models VS-603EG/EK/ES/EZ, VS-606EA/ED, VS-607EO-G, VS-626EO. Due to the new models VS-626EO have been addid for the VS-603E Series.
Use this additional Schematic Diagram together with the model VS-603EG/EK/ES/EZ, VS-606EA/EO, VS-607EO-G SERVICE MANUAL which published previously.


AKAI
FUNCTION
TIMER
VIDEO CASSETTE RECORDER
VS-603EG
STANDBY
SPEED
Hi-Fi
EJECT
TAPE VIEW
Hi-Fi
VHS
TAPE COUNTER
PLAY
REW
F.FWD
QUICK FINDER
STOP
REC
SOFT SHARP
PICTURE

HiFi VIDEO CASSETTE RECORDER

MODEL VS-603EG/EK/ES/EZ
MODEL VS-606EA/EO
MODEL VS-607EO-G
MODEL VS-626EO

SPECIFICATIONS

Format		VHS Standard
Video recording system		Rotary, slant azimuth two-head helical scan system
Rotary heads		4 video heads and 2 audio heads
RF input		System B, G with monaural or multiplexed 2 channel audio VHF: Low ch 2 to 4, SI to S3 High ch M1 to M10, 5 to 12, U1 to U10 UHF: ch 21 to 69
RF output		System G type modulation UHF: ch 30 to 39 adjustable (preset ch 36)
Recording (line input)		PAL, CCIR (System B, G, I)
Playback (line output)		PAL, CCIR (System B, G, I)
Video	Line input level	0.5 to 2.0 Vp-p/75 ohms, unbalanced
	Line output level	1.0 Vp-p/75 ohms, unbalanced
	S/N ratio	More than 43 dB
	Horizontal resolution	More than 250 lines (SP mode)
Audio (VHS HiFi: 2ch, LINEAR: 1 ch)		
	Line input level	–8 dBm/50 kohms, unbalanced (309 mVrms) (–20 dBm at Recording level control max)
	Line output level	–6 dBm/1 kohms, unbalanced (388 mVrms)
	Dynamic range	More than 80 dB (VHS HiFi)
	S/N ratio	More than 70 dB (VHS HiFi) More than 40 dB (Linear track, SP mode)
	Frequency Response	20 to 20,000 Hz (VHS HiFi) 70 to 10,000 Hz (Linear track, SP mode)
	Wow & Flutter	Less than 0.005% WRMS (VHS HiFi)
Recording/Playback time		240 min. with E-240 cassette on SP mode 480 min. with E-240 cassette on LP mode
Tape speed	SP Mode	23.39 mm/sec
	LP Mode	11.695 mm/sec
Quick finder	SP Mode	Approx. 7 times normal speed
	LP Mode	Approx. 15 times normal speed
FF, REW time		Approx. 4 min. with E-180 cassette
Timer	Programs	8 programs/4 week and sleep timer
	Clock reference	Quartz crystal
Display		TV screen (Tape counter, Timer etc.)
Power requirements	EA	240V AC, 50 Hz
	EO	220V AC, 50 Hz
Power consumption		36W
Operating temperature		5°C to 40°C (41°F to 104°F)
Dimensions		440 (W) x 99 (H) x 368 (D) mm (17.3 x 3.9 x 14.5 inches)
Weight		10.0 kg (22.0 lbs)

PARTS LIST

The available service parts for the model VS-626EO are identical to those of the model VS-606EO except for the parts listed hereunder. Refer to the Parts List in the VS-606EO Service Manual for the parts not listed in this Parts List.

2. CHASSIS MECHA BLOCK (1)

REF. NO.	PART NO.	DESCRIPTION
2-5	ML-B365141	LEVER TENSION (2) PART

3. CHASSIS MECHA BLOCK (2)

REF. NO.	PART NO.	DESCRIPTION
18-PH1	ET-365248	DETECTOR ON2160 Q,R
19-PH1	ET-365248	DETECTOR ON2160 Q,R

4. EJECTOR BLOCK

REF. NO.	PART NO.	DESCRIPTION
4-26	SP-364666	PLATE MIRROR (2)
4-28	SE-353040L	MASK CASSETTE (ENGLISH HQ,PAL)
21-TR1	ET-359700	TR PHOT PN202S S
22-TR1	ET-359700	TR PHOT PN202S S

6. VIDEO PC BOARD

REF. NO.	PART NO.	DESCRIPTION
6-TR56	ET-308472	⚠ TR 2SA111 5E,F,G F05
6-TR64	ET-308472	TR 2SA1115 E,F,G F05
6-TR601	ET-349366	TR 2SC3402 F05
6-D601	ED-344280	D SILICON H GMA-01-FY2 F05
6-D602	ED-624903	D SILICON H 1S2473
6-VC1	EC-362054	C S-FIX H ECR-HA030E11 5.5-30

7. HIFI AUDIO PC BOARD

REF. NO.	PART NO.	DESCRIPTION
7-D18	ED-624903	D SILICON H 1S2473
7-VR7,10	EV-358829	R S-FIX H RH0615CJ4J 3P 223

"TR19, D8 are not required for this model."

12. MECHA DRIVE PC BOARD

REF. NO.	PART NO.	DESCRIPTION
12-TR80	ET-308472	TR 2SA1115 E,F,G F05

13. SYSTEM CONTROL PC BOARD

REF. NO.	PART NO.	DESCRIPTION
13-IC1	EI-364329	IC MB8841-1450J B-PAL2

14. DEMODULATOR PC BOARD

"D1, D4, R12 are not required for this model."

17. SELECTOR PC BOARD

REF. NO.	PART NO.	DESCRIPTION
17-C1	EC-338577	⚠ C CE V F472M 400AC

18. SENSOR (S) PC BOARD

REF. NO.	PART NO.	DESCRIPTION
18-PH1	ET-365248	DETECTOR ON2160 Q,R

19. SENSOR (T) PC BOARD

REF. NO.	PART NO.	DESCRIPTION
19-PH1	ET-365248	DETECTOR ON2160 O,R

21. SENSOR (L) PC BOARD

REF. NO.	PART NO.	DESCRIPTION
21-TR1	ET-359700	TR PHOT PN202S S

22. SENSOR (R) PC BOARD

REF. NO.	PART NO.	DESCRIPTION
22-TR1	ET-359700	TR PHOT PN202S S

26. SERVO SUB PC BOARD

"SERVO SUB PC BOARD is not required for this model."

26. ASSEMBLY BLOCK

REF. NO.	PART NO.	DESCRIPTION
26-1	ZS-357528	DELL TIGHT BR30×08STL CMT [POWER TRANS FIX]
26-2	EW-356588	⚠ AC CORD 2 CORES KP419C LTCE2F-CB EV
26-3	BV-353842	RF CONVERTER/BOOSTER MDLL6S023A
26-4	ZS-356675	PLX BR30×10STL BLUE [RF CONVERTER FIX]
26-5	SP-364027F	PANEL REAR VS-626EO
26-6	SZ-354739	CAP PANEL
26-7	ZS-357944	ST BR30×10STL BNI SPECIAL [COVER UPPER FIX]
26-8	SA-353927B	FOOT (2)
26-9	MZ-357839	GUIDE CASSETTE (F)
26-T901	BT-356595	⚠ TRANS POWER V1027 EO 220

27. FINAL ASSEMBLY BLOCK

REF. NO.	PART NO.	DESCRIPTION
	PANEL FRONT BLOCK	
27-1	BD-V1030A130H	PANEL FRONT BLK VS-626EO
27-1-B	BD-V1030B130G	PANEL FRONT BLK VS-626EO-B
27-2	SK-B353757C	KNOB PLAY PART
27-2-B	SK-B353757F	KNOB PLAY-B PART
27-3	SK-B353759C	KNOB QUICK FINDER PART
27-3-B	SK-B353759F	KNOB QUICK FINDER-B PART
27-4	SK-353762C	KNOB STOP
27-4-B	SK-353762D	KNOB STOP-B
27-5	SK-B353765B	KNOB PAUSE/STILL PART
27-5-B	SK-B353765E	KNOB PAUSE/STILL-B PART
27-6	SK-B353764B	KNOB REC PART
27-6-B	SK-B353764E	KNOB REC-B PART
27-7	SK-B353768C	KNOB FUNCTION PART
27-7-B	SK-B353768H	KNOB FUNCTION-B PART
27-8	SK-B353768F	KNOB TIMER PART
27-8-B	SK-B353768L	KNOB TIMER-B PART
27-9	SK-353499C	KNOB EJECT
27-9-B	SK-353499E	KNOB EJECT-B
27-10	SP-355395K	PLATE DECORATION (C) VS-626EO
	FINAL ASSEMBLY BLOCK	
27-11	SP-353796	COVER UPPER
27-11-B	SP-353796B	COVER UPPER-B
27-12	ZS-357953	ST BID40×08STL NI3 SPECIAL [COVER UPPER FIX]
27-12-B	ZS-357954	ST BID40×08STL BNI SPECIAL [COVER UPPER FIX]
27-13x	EW-348414	CORD PAL [ANTENNA CABLE]

28. REMOTE CONTROL UNIT RC-V603

REF. NO.	PART NO.	DESCRIPTION
28-1	AV-354008	REMOCON RC-V603B-E1 WIRELESS(T)
28-1-B	AV-354013	REMOCON RC-V603B-E1B WIRELESS(T)
28-IC1	EI-749983	IC UPD1943G
28-TR1	ET-318604	TR 2SD545NP E,F
28-D1	ED-714631	D LED TLN105A
28-D2	ED-714631	D LED TLN105A
28-D3	ED-557447	D SILICON H 1S1588
28-D4	ED-557447	D SILICON H 1S1588
28-X1	EI-710044	OSC CE CSB455EB 455KHZ
28-2	SC-718283	COVER BOTTOM
28-2-B	SC-718284	COVER BOTTOM-B
28-3	SZ-718285	PLATE REMOCON

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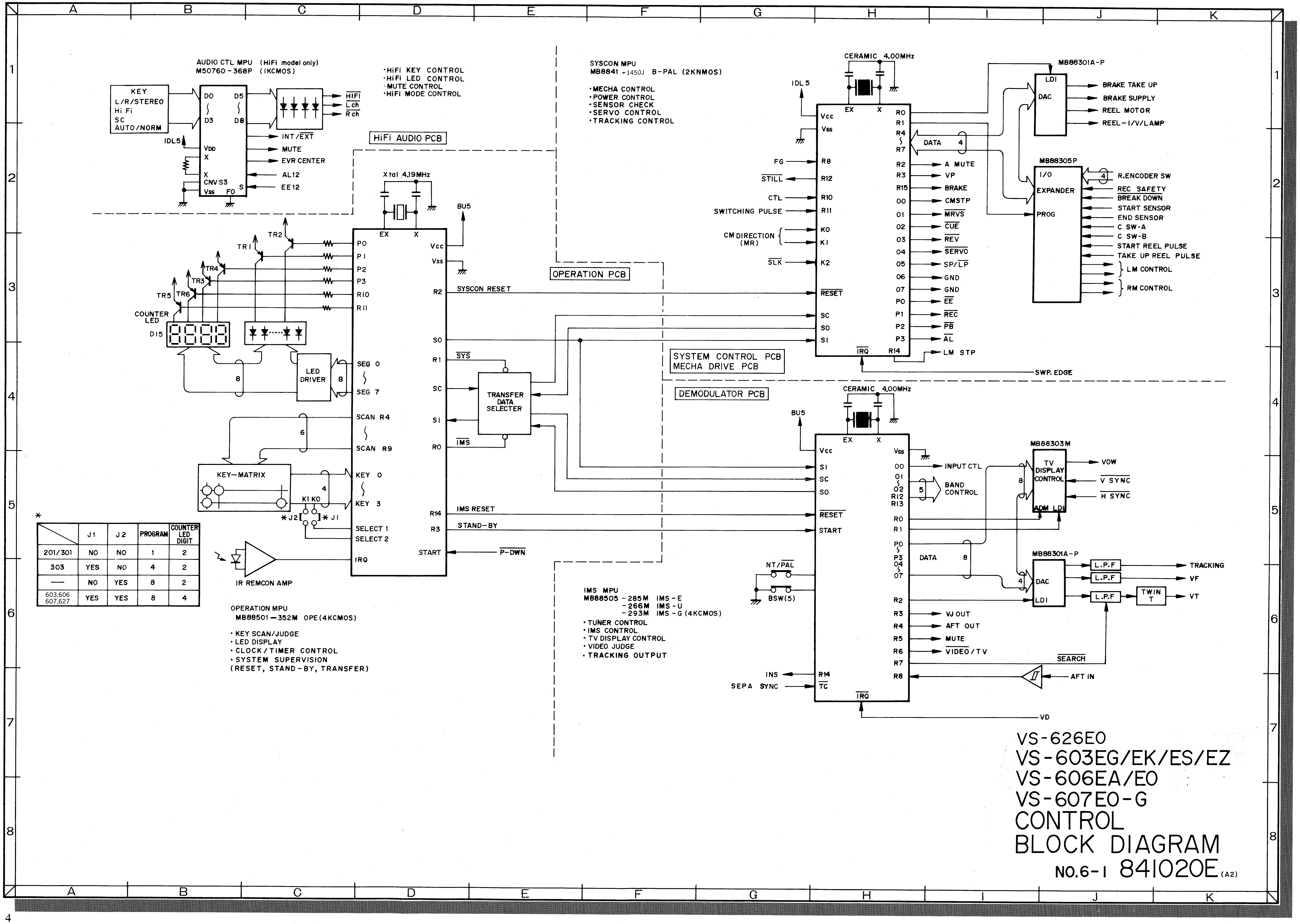
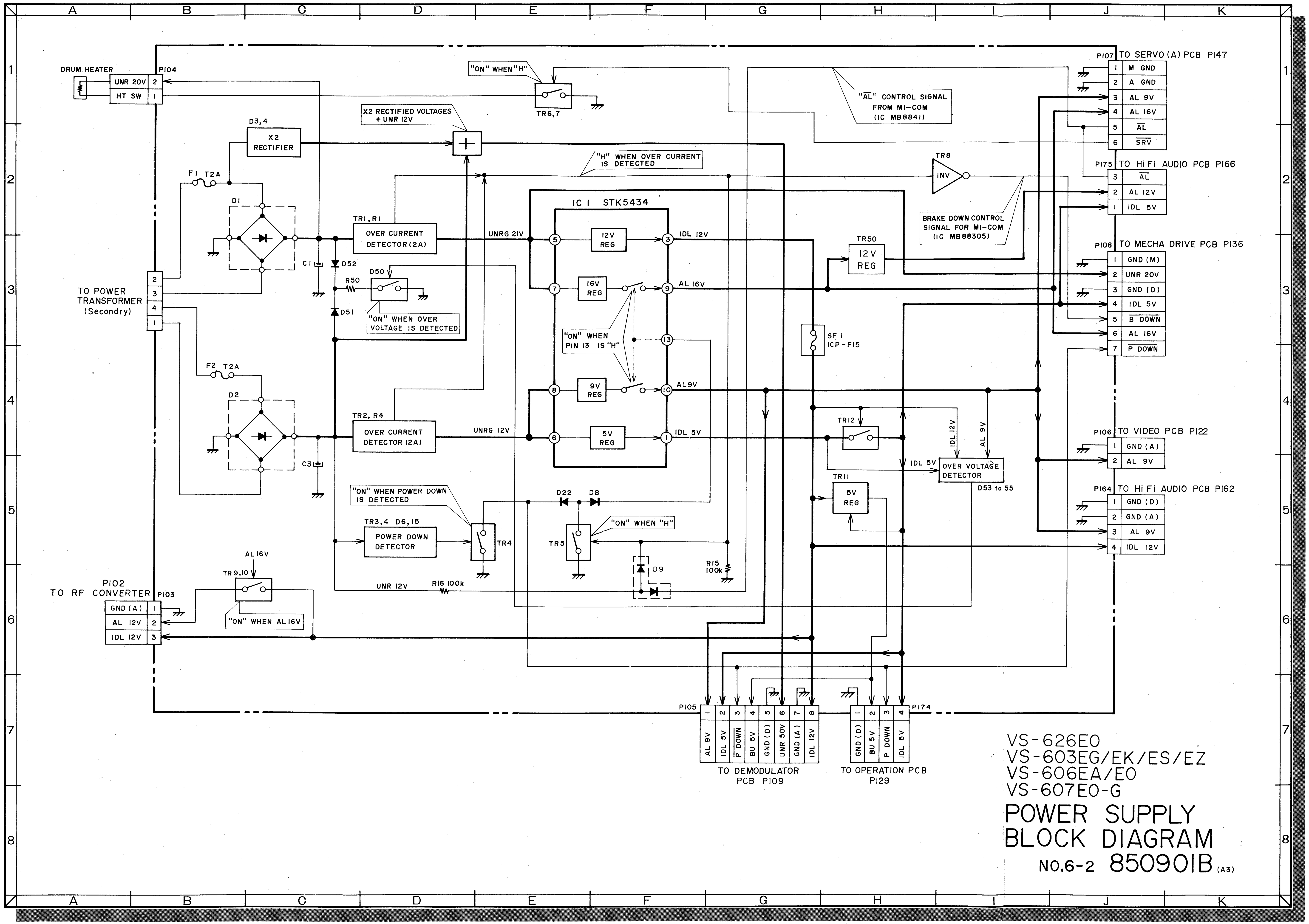
29. VS-606EO, VS-626EO TUNER/VIF UNIT SCHEMATIC DIAGRAM 30
30. ST BLOCK/VIF UNIT PC BOARD 31
31. LEVEL METER SCHEMATIC DIAGRAM 32
32. REMOTE CONTROL UNIT SCHEMATIC DIAGRAM AND PC BOARD 33


A
B
C
D
E
F
G
H
I
J
K
1
2
3
4
5
6
7
8
AUDIO CTL MPU (HiFi model only)
M50760-368P (1KCMOS)
·HiFi KEY CONTROL
·HiFi LED CONTROL
·MUTE CONTROL
·HiFi MODE CONTROL
KEY
L/R/STEREO
Hi Fi
SC
AUTO/NORM
D0
D3
D5
D8
IDL5
VDD
X
X
CNVS3
Vss
F0
S
HIFI
Lch
Rch
INT/EXT
MUTE
EVR CENTER
AL12
EE12
HiFi AUDIO PCB
Xtal 4.19MHz
BU5
EX
X
Vcc
Vss
TR2
TR1
TR4
TR3
TR5
TR6
P0
P1
P2
P3
R10
R11
R2
SYSCON RESET
COUNTER LED
D15
8
LED DRIVER
8
SEG 0
SEG 7
S0
R1
SYS
SC
TRANSFER DATA SELECTER
S1
R0
IMS
SCAN R4
SCAN R9
6
KEY-MATRIX
4
KEY 0
KEY 3
K1 K0
*J2
*J1
SELECT 1
SELECT 2
IRQ
R14
IMS RESET
R3
STAND-BY
START
P-DWN
IR REMCON AMP
OPERATION MPU
MB88501-352M OPE(4KCMOS)
·KEY SCAN/JUDGE
·LED DISPLAY
·CLOCK/TIMER CONTROL
·SYSTEM SUPERVISION
(RESET, STAND-BY, TRANSFER)
OPERATION PCB
SYSCON MPU
MB8841 -1450J B-PAL (2KNMOS)
·MECHA CONTROL
·POWER CONTROL
·SENSOR CHECK
·SERVO CONTROL
·TRACKING CONTROL
CERAMIC 4.00MHz
IDL5
EX
X
Vcc
Vss
FG
R8
STILL
R12
CTL
R10
SWITCHING PULSE
R11
CM DIRECTION (MR)
K0
K1
SLK
K2
RESET
SC
S0
S1
IRQ
R14
R0
R1
R4
R7
DATA 4
R2
A MUTE
R3
VP
R15
BRAKE
00
CMSTP
01
MRVS
02
CUE
03
REV
04
SERVO
05
SP/LP
06
GND
07
GND
P0
EE
P1
REC
P2
PB
P3
AL
LM STP
SWP. EDGE
SYSTEM CONTROL PCB
MECHA DRIVE PCB
MB88301A-P
LDI
DAC
BRAKE TAKE UP
BRAKE SUPPLY
REEL MOTOR
REEL-I/V/LAMP
MB88305P
I/O
EXPANDER
PROG
4
R.ENCODER SW
REC SAFETY
BREAK DOWN
START SENSOR
END SENSOR
C SW-A
C SW-B
START REEL PULSE
TAKE UP REEL PULSE
LM CONTROL
RM CONTROL
DEMODULATOR PCB
CERAMIC 4.00MHz
BU5
EX
X
Vcc
Vss
S1
SC
S0
RESET
START
00
INPUT CTL
01
02
R12
R13
5
BAND CONTROL
R0
R1
P0
P3
04
07
DATA 8
R2
R3
VJ OUT
R4
AFT OUT
R5
MUTE
R6
VIDEO/TV
R7
SEARCH
R8
AFT IN
NT/PAL
BSW(5)
INS
R14
SEPA SYNC
TC
IRQ
VD
MB88303M
TV DISPLAY CONTROL
ADM LDI
8
VOW
V SYNC
H SYNC
MB88301A-P
DAC
LDI
4
L.P.F
L.P.F
L.P.F
TWIN T
TRACKING
VF
VT
IMS MPU
MB88505 -285M IMS-E
-266M IMS-U
-293M IMS-G (4KCMOS)
·TUNER CONTROL
·IMS CONTROL
·TV DISPLAY CONTROL
·VIDEO JUDGE
·TRACKING OUTPUT

*

	J1	J2	PROGRAM	COUNTER LED DIGIT
201/301	NO	NO	1	2
303	YES	NO	4	2
—	NO	YES	8	2
603,606 607,627	YES	YES	8	4

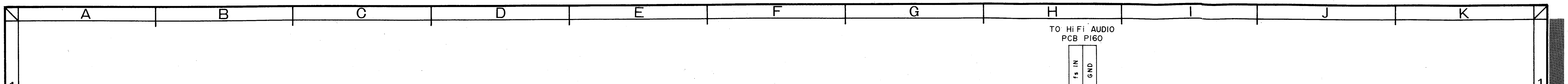
VS-626E0
VS-603EG/EK/ES/EZ
VS-606EA/E0
VS-607E0-G
CONTROL
BLOCK DIAGRAM
NO.6-1 841020E (A2)

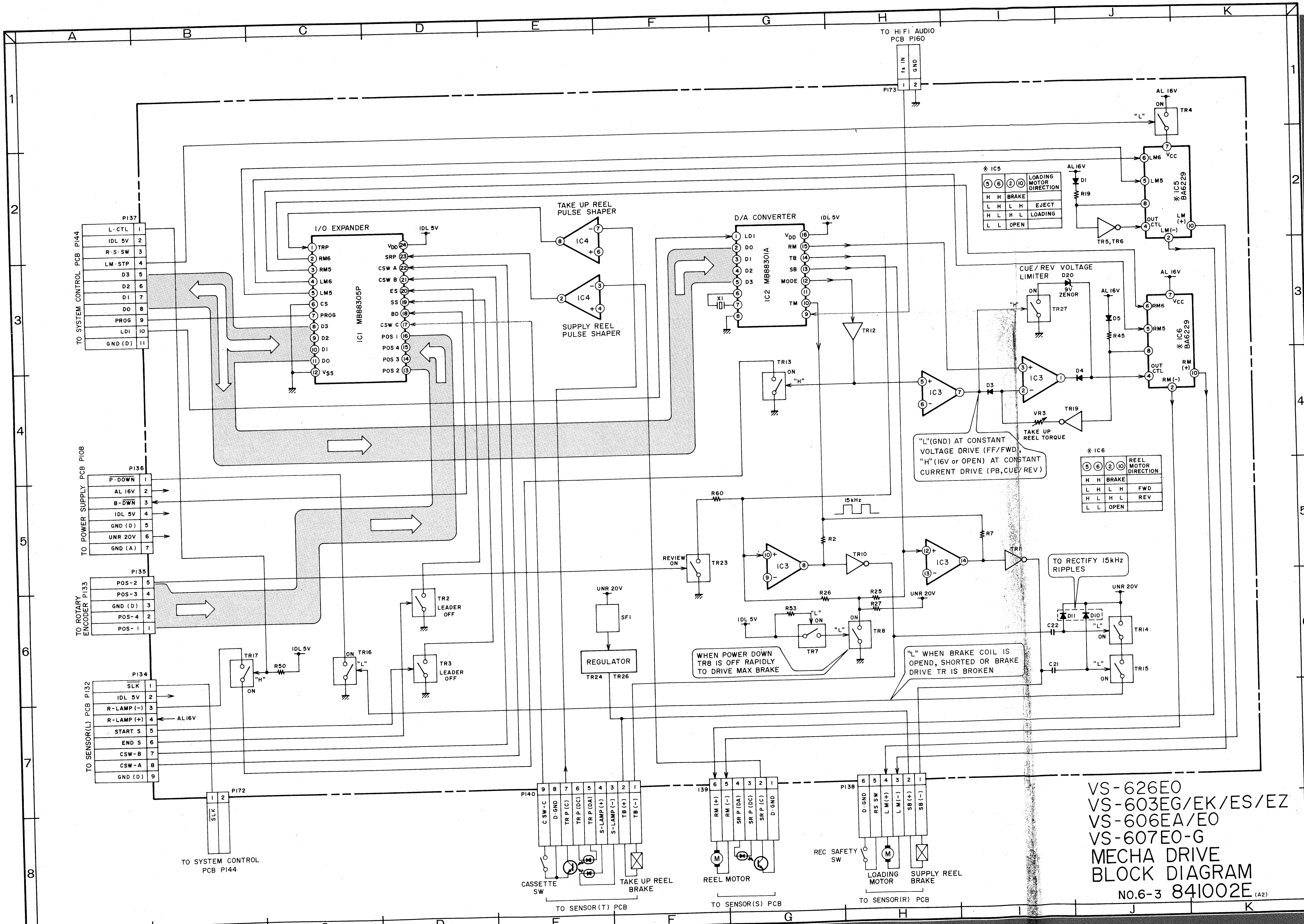

DRUM HEATER
P104
UNR 20V 2
HT SW 1
"ON" WHEN "H"
TR6,7
X2 RECTIFIED VOLTAGES + UNR 12V
D3,4
X2 RECTIFIER
"AL" CONTROL SIGNAL FROM MI-COM (IC MB8841)
"H" WHEN OVER CURRENT IS DETECTED
TR8
INV
F1 T2A
D1
TR1, R1
OVER CURRENT DETECTOR (2A)
UNRG 21V
IC1 STK5434
12V REG
IDL 12V
16V REG
AL 16V
9V REG
AL9V
5V REG
IDL 5V
"ON" WHEN PIN 13 IS "H"
BRAKE DOWN CONTROL SIGNAL FOR MI-COM (IC MB88305)
TR50
12V REG
C1
D52
R50
D50
"ON" WHEN OVER VOLTAGE IS DETECTED
D51
TO POWER TRANSFORMER (Secondry)
F2 T2A
D2
C3
TR2, R4
OVER CURRENT DETECTOR (2A)
UNRG 12V
SF1 ICP-F15
TR12
IDL 12V
AL 9V
IDL 5V
OVER VOLTAGE DETECTOR
D53 to 55
TR11
5V REG
"ON" WHEN POWER DOWN IS DETECTED
TR3,4 D6,15
POWER DOWN DETECTOR
TR4
D22 D8
"ON" WHEN "H"
TR5
D9
R15 100k
AL 16V
TR9,10
"ON" WHEN AL16V
UNR 12V
R16 100k
P102 TO RF CONVERTER
P103
GND (A) 1
AL 12V 2
IDL 12V 3
P107 TO SERVO (A) PCB P147
1 M GND
2 A GND
3 AL 9V
4 AL 16V
5 AL
6 SRV
P175 TO HiFi AUDIO PCB P166
3 AL
2 AL 12V
1 IDL 5V
P108 TO MECHA DRIVE PCB P136
1 GND (M)
2 UNR 20V
3 GND (D)
4 IDL 5V
5 B DOWN
6 AL 16V
7 P DOWN
P106 TO VIDEO PCB P122
1 GND (A)
2 AL 9V
P164 TO HiFi AUDIO PCB P162
1 GND (D)
2 GND (A)
3 AL 9V
4 IDL 12V
P105
1 AL 9V
2 IDL 5V
3 P DOWN
4 BU 5V
5 GND (D)
6 UNR 50V
7 GND (A)
8 IDL 12V
TO DEMODULATOR PCB P109
P174
1 GND (D)
2 BU 5V
3 P DOWN
4 IDL 5V
TO OPERATION PCB P129
A B C D E F G H I J K
1 2 3 4 5 6 7 8

VS-626E0
VS-603EG/EK/ES/EZ
VS-606EA/E0
VS-607E0-G

POWER SUPPLY BLOCK DIAGRAM

NO.6-2 850901B (A3)


A B C D E F G H I J K
TO HiFi AUDIO PCB P160
fs IN
GND
1


A
B
C
D
E
F
G
H
I
J
K
1
2
3
4
5
6
7
8
TO HiFi AUDIO PCB P160
fs IN
GND
P173
AL 16V
ON
"L"
TR4
P137
L-CTL
IDL 5V
R-S-SW
LM-STP
D3
D2
D1
DO
PROG
LDI
GND (D)
TO SYSTEM CONTROL PCB P144
I/O EXPANDER
IDL 5V
TRP
RM6
RM5
LM6
LM5
CS
PROG
D3
D2
D1
DO
VSS
VDD
SRP
CSW A
CSW B
ES
SS
BD
CSW C
POS 1
POS 4
POS 3
POS 2
IC1 MB88305P
TAKE UP REEL PULSE SHAPER
IC4
SUPPLY REEL PULSE SHAPER
D/A CONVERTER
IDL 5V
LDI
DO
D1
D2
D3
X1
VDD
RM
TB
SB
MODE
TM
IC2 MB88301A
TR12
TR13
ON
"H"
IC5 BA6229
LM6
LM5
VCC
OUT CTL
LM(-)
LM (+)
AL16V
D1
R19
TR5,TR6
CUE/REV VOLTAGE LIMITER
D20
9V ZENOR
ON
"H"
TR27
AL 16V
D5
R45
IC6 BA6229
RM6
RM5
VCC
OUT CTL
RM(-)
RM (+)
IC3
D3
D4
VR3
TAKE UP REEL TORQUE
TR19
"L"(GND) AT CONSTANT VOLTAGE DRIVE (FF/FWD), "H"(16V or OPEN) AT CONSTANT CURRENT DRIVE (PB,CUE/REV)
P136
P-DOWN
AL 16V
B-DWN
IDL 5V
GND (D)
UNR 20V
GND (A)
TO POWER SUPPLY PCB P108
P135
POS-2
POS-3
GND (D)
POS-4
POS-1
TO ROTARY ENCODER P133
P134
SLK
IDL 5V
R-LAMP (-)
R-LAMP (+)
AL16V
START S
END S
CSW-B
CSW-A
GND (D)
TO SENSOR(L) PCB P132
TR2 LEADER OFF
TR3 LEADER OFF
TR16
ON
"L"
TR17
"H"
ON
R50
IDL 5V
UNR 20V
SF1
REGULATOR
TR24
TR26
R60
15kHz
REVIEW ON
TR23
R2
TR10
R7
TR11
R26
R25
R27
UNR 20V
R53
IDL 5V
"L"
ON
TR7
TR8
WHEN POWER DOWN TR8 IS OFF RAPIDLY TO DRIVE MAX BRAKE
"L" WHEN BRAKE COIL IS OPEND, SHORTED OR BRAKE DRIVE TR IS BROKEN
TO RECTIFY 15kHz RIPPLES
D11
D10
C22
C21
UNR 20V
TR14
TR15
P172
SLK
TO SYSTEM CONTROL PCB P144
P140
C SW-C
D-GND
TR P (C)
TR P (DC)
TR P (DA)
S-LAMP (+)
S-LAMP (-)
TB (+)
TB (-)
CASSETTE SW
TAKE UP REEL BRAKE
TO SENSOR (T) PCB
139
RM (+)
RM (-)
SR P (DA)
SR P (DC)
SR P (C)
D-GND
REEL MOTOR
TO SENSOR(S) PCB
P138
D-GND
RS SW
L M(+)
L M(-)
SB (+)
SB (-)
REC SAFETY SW
LOADING MOTOR
SUPPLY REEL BRAKE
TO SENSOR(R) PCB

※ IC5

⑤	⑥	②	⑩	LOADING MOTOR DIRECTION
H	H	BRAKE		
L	H	L	H	EJECT
H	L	H	L	LOADING
L	L	OPEN		

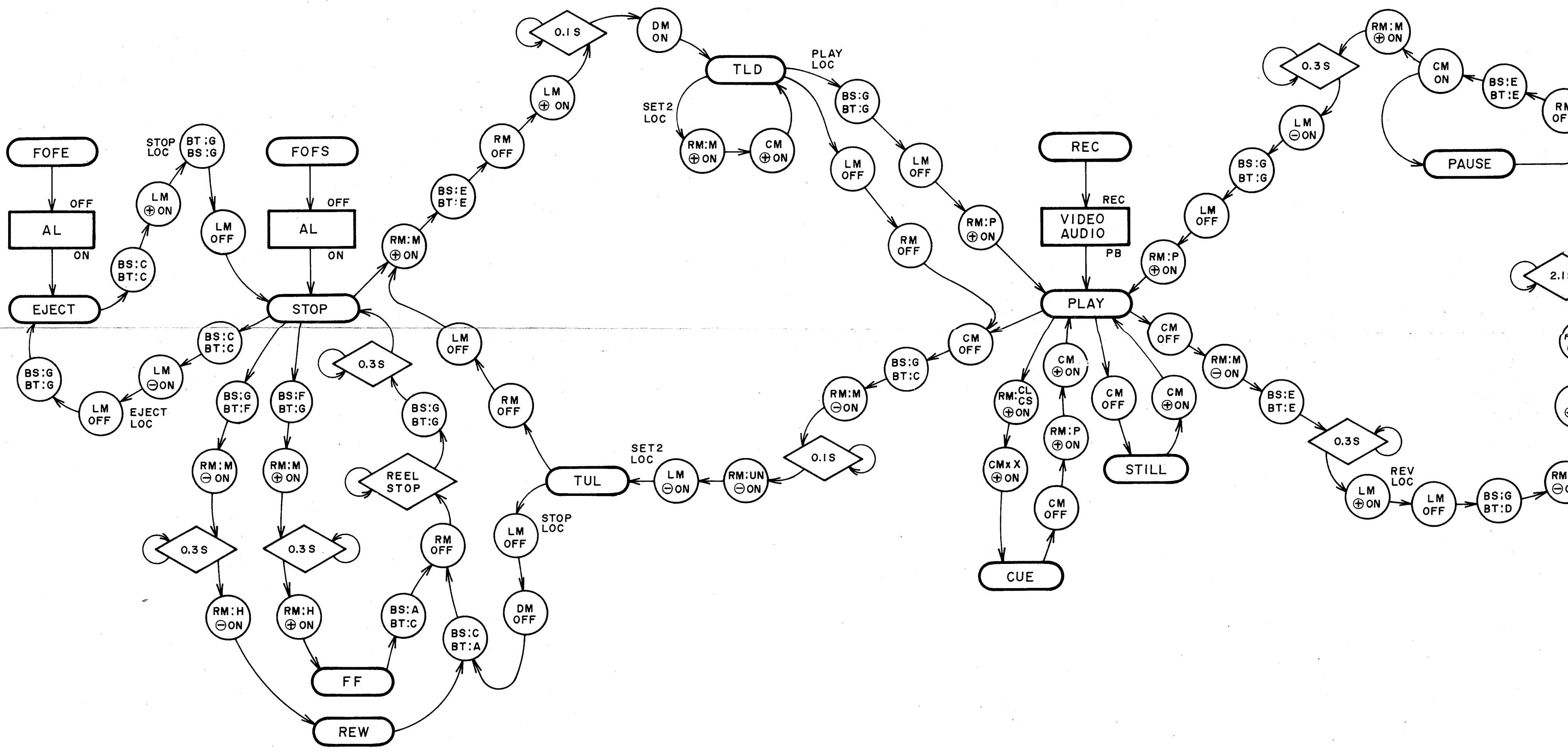
※ IC6

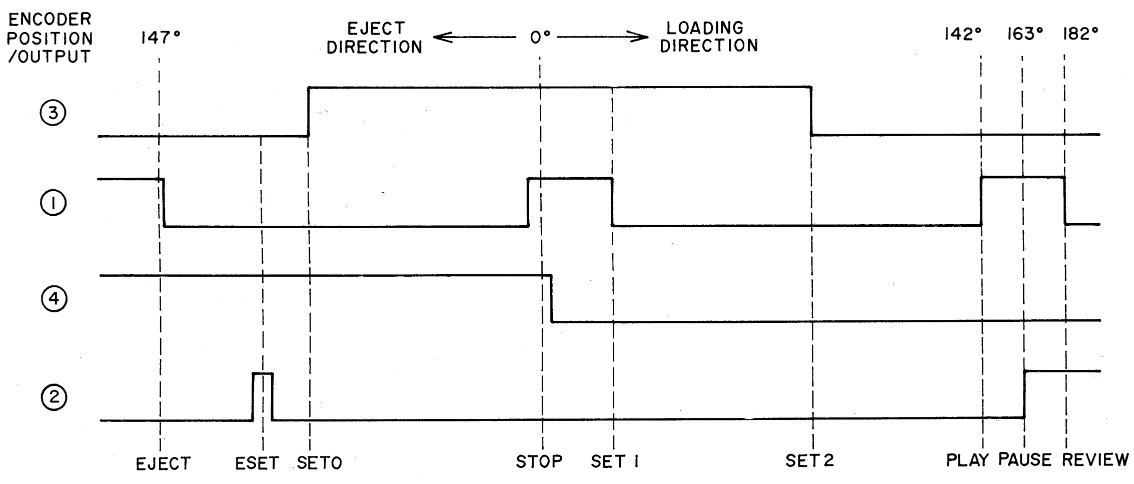
⑤	⑥	②	⑩	REEL MOTOR DIRECTION
H	H	BRAKE		
L	H	L	H	FWD
H	L	H	L	REV
L	L	OPEN		

VS-626EO
VS-603EG/EK/ES/EZ
VS-606EA/EO
VS-607EO-G
MECHA DRIVE
BLOCK DIAGRAM

NO.6-3 841002E (A2)

MECHA MODE AND ACTIONFLOW


FOFE
AL
OFF
ON
EJECT
BS:C BT:C
LM ⊕ON
STOP LOC
BT:G BS:G
LM OFF
FOFS
AL
OFF
ON
STOP
BS:G BT:G
LM OFF
EJECT LOC
LM ⊖ON
BS:C BT:C
BS:G BT:F
BS:F BT:G
RM:M ⊖ON
RM:M ⊕ON
0.3S
0.3S
RM:H ⊖ON
RM:H ⊕ON
FF
REW
BS:A BT:C
BS:C BT:A
RM OFF
REEL STOP
BS:G BT:G
0.3S
LM OFF
RM:M ⊕ON
BS:E BT:E
RM OFF
LM ⊕ON
0.1S
DM ON
TLD
PLAY LOC
SET2 LOC
RM:M ⊕ON
CM ⊕ON
BS:G BT:G
LM OFF
LM OFF
RM OFF
RM:P ⊕ON
RM OFF
TUL
SET2 LOC
LM ⊖ON
RM:UN ⊖ON
0.1S
RM:M ⊖ON
BS:G BT:C
CM OFF
LM OFF
STOP LOC
DM OFF
REC
REC
VIDEO AUDIO
PB
PLAY
RM:CL CS ⊕ON
CMxX ⊕ON
CUE
CM ⊕ON
RM:P ⊕ON
CM OFF
CM OFF
CM ⊕ON
STILL
CM OFF
RM:M ⊖ON
BS:E BT:E
0.3S
REV LOC
LM ⊕ON
LM OFF
BS:G BT:D
RM:P ⊕ON
LM OFF
BS:G BT:G
LM ⊖ON
0.3S
RM:M ⊕ON
CM ON
BS:E BT:E
PAUSE


ENCODER POSITION /OUTPUT
147°
EJECT DIRECTION
0°
LOADING DIRECTION
142°
163°
182°
③
①
④
②
EJECT
ESET
SETO
STOP
SET I
SET2
PLAY
PAUSE
REVIEW

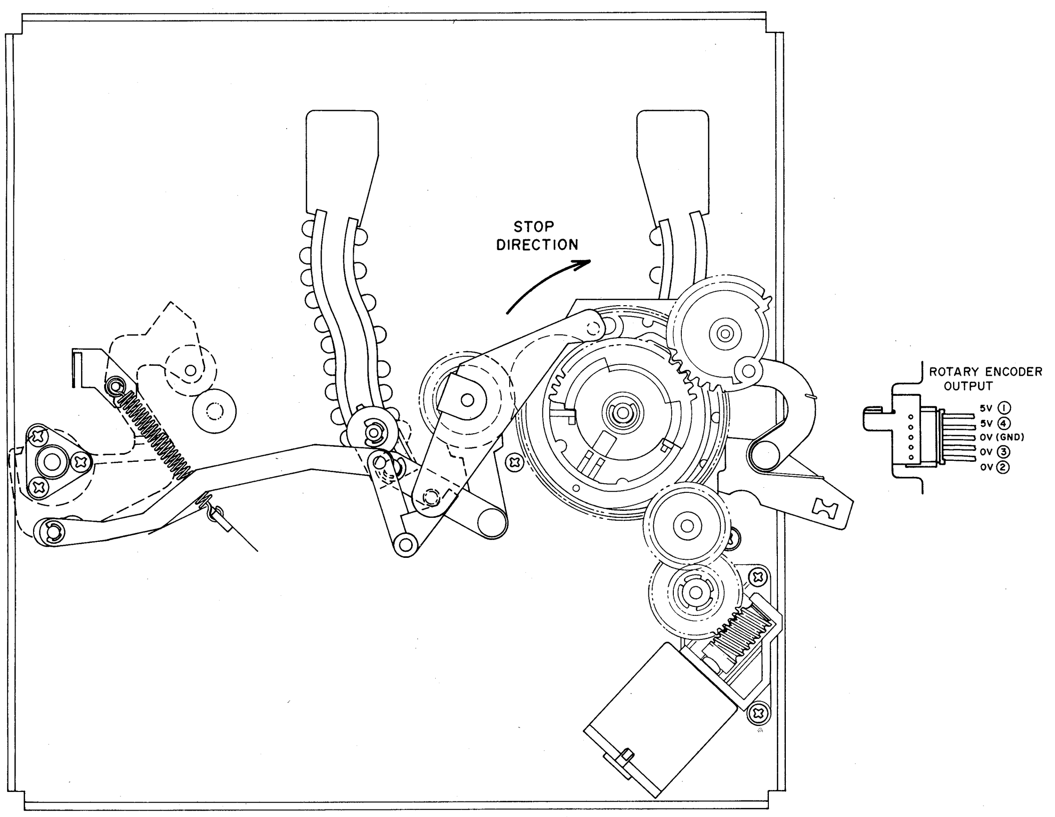
ABBREVIATIONS

Reel Motor Torque Voltage Drive Mode
M : Idler Position Change
H : FF REW

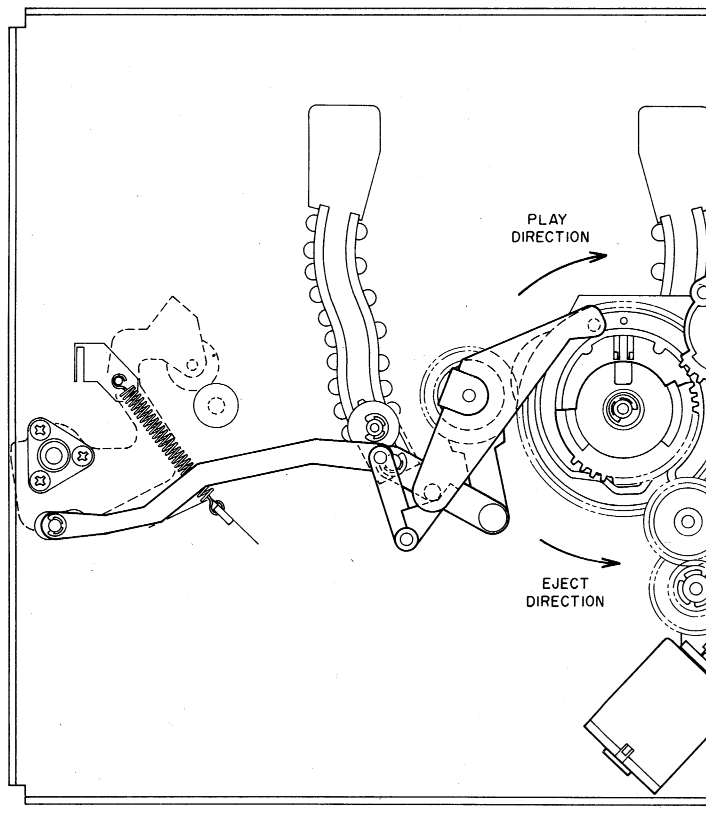
Current Drive Mode
CL : LP CUE REV
AE : AEC
P : PLAY REC
UN : Unloading
CS : SP LP CUE REV

Magnetic Brake Torque
A : From FF REW To STOP(Supply Side)
Increase C : From FF REW To STOP(Winding Side)
D : REV Back Tension
E : Unloading Brake
Decrease F : FF REW Back Tension(Supply Side)
G : FF RWD(Take Up Side)

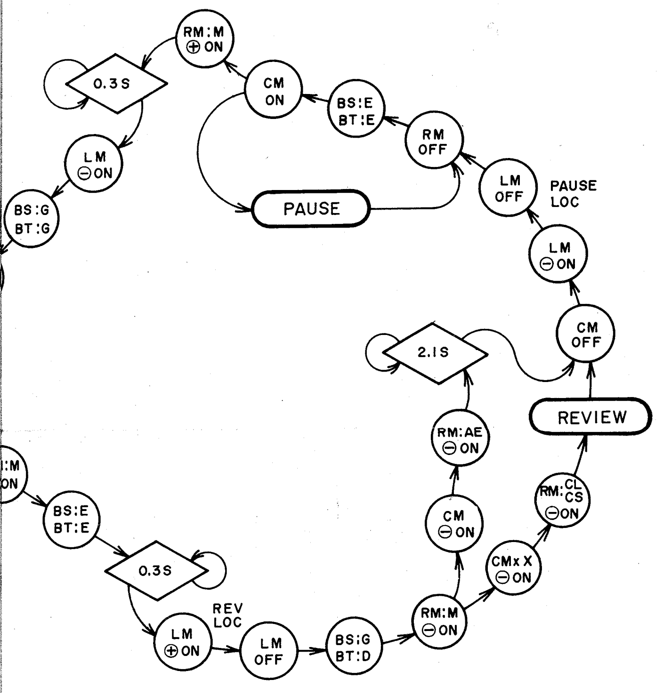
DM : Drum
CM : Capst
BT : Take
BS : Suppl
RM : Reel
LM : Loadi
FOFE : Eje
(Wi
FOFS : Sto
(Wi
AL : Alway
LOC : Loca
TLD : Tape
TUL : Tape
LM ⊕ ON :
RM ⊕ ON :
CMxX ⊕ ON


STOP DIRECTION
ROTARY ENCODER OUTPUT
5V ①
5V ④
0V (GND)
0V ③
0V ②

EJECTED (TAPE OUT)


PLAY DIRECTION
EJECT DIRECTION

STOP (TAPE IN)


RM:M
⊕ ON
0.3S
CM
ON
BS:E
BT:E
RM
OFF
LM
⊖ ON
BS:G
BT:G
PAUSE
LM
OFF
PAUSE
LOC
LM
⊖ ON
CM
OFF
2.1S
REVIEW
RM:AE
⊖ ON
:M
ON
BS:E
BT:E
0.3S
CM
⊖ ON
RM:CL
CS
⊖ON
CMxX
⊖ ON
REV
LOC
LM
⊕ ON
LM
OFF
BS:G
BT:D
RM:M
⊖ ON

IONS

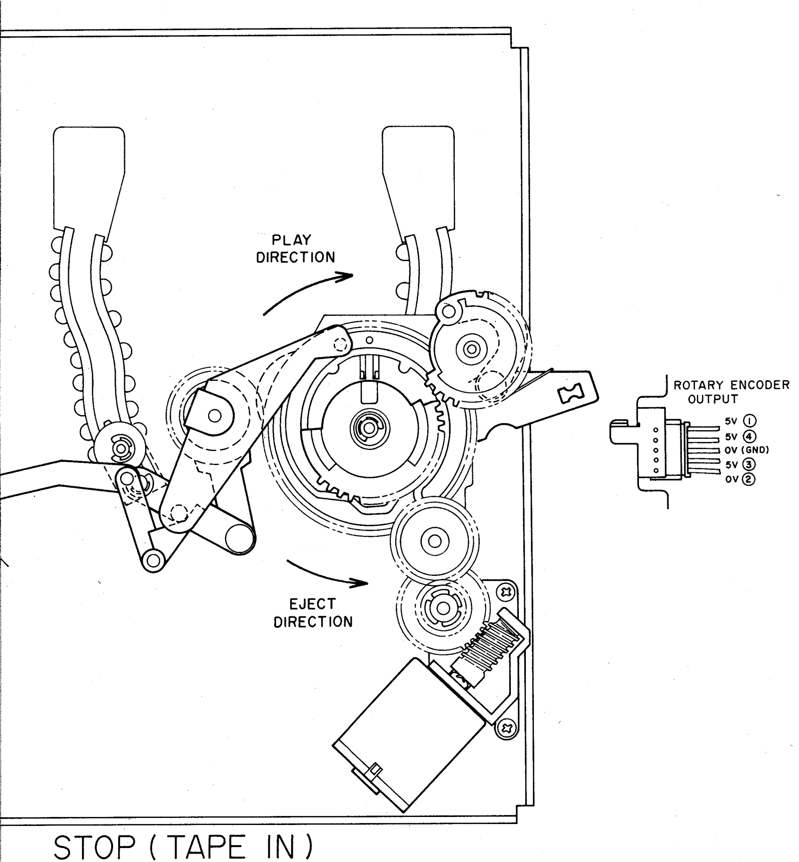
Voltage Drive Mode
on Change

e

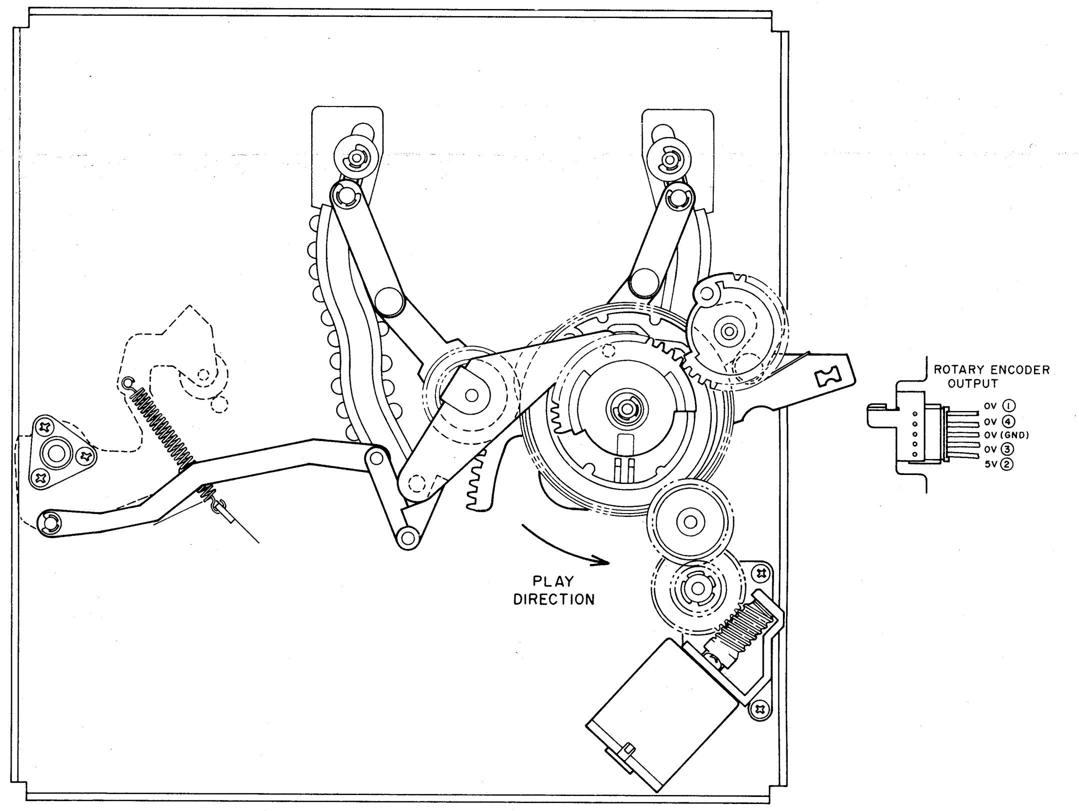
EV

rque
To STOP(Supply Side)
To STOP(Winding Side)
sion
ake
Tension(Supply Side)
Up Side)

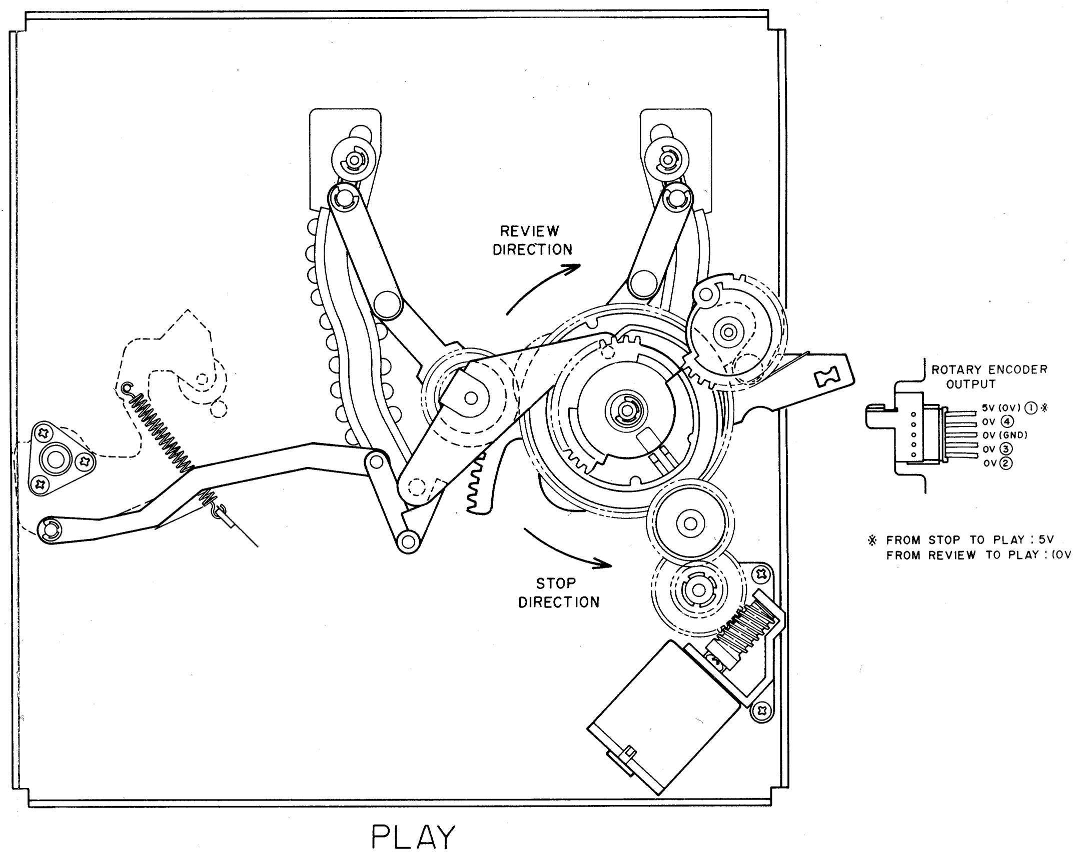
DM : Drum Motor
CM : Capstan Motor
BT : Take Up Magnetic Brake
BS : Supply Magnetic Brake
RM : Reel Motor
LM : Loading Motor
FOFE : Ejected Function Off (Without Tape)
FOFS : Stopped Function Off (With Tape)
AL : Always Function
LOC : Location(Detecting Rotary Encoder)
TLD : Tape Loading
TUL : Tape Unloading
LM ⊕ ON : Loading Motor Rotation (Loading Direction)
RM ⊕ ON : Reel Motor Rotation (PLAY Direction)
CMxX ⊕ ON : Capstan Motor Speedy Rotation (CUE Direction)


PLAY
DIRECTION
EJECT
DIRECTION
ROTARY ENCODER
OUTPUT
5V ①
5V ④
0V (GND)
5V ③
0V ②

STOP (TAPE IN)

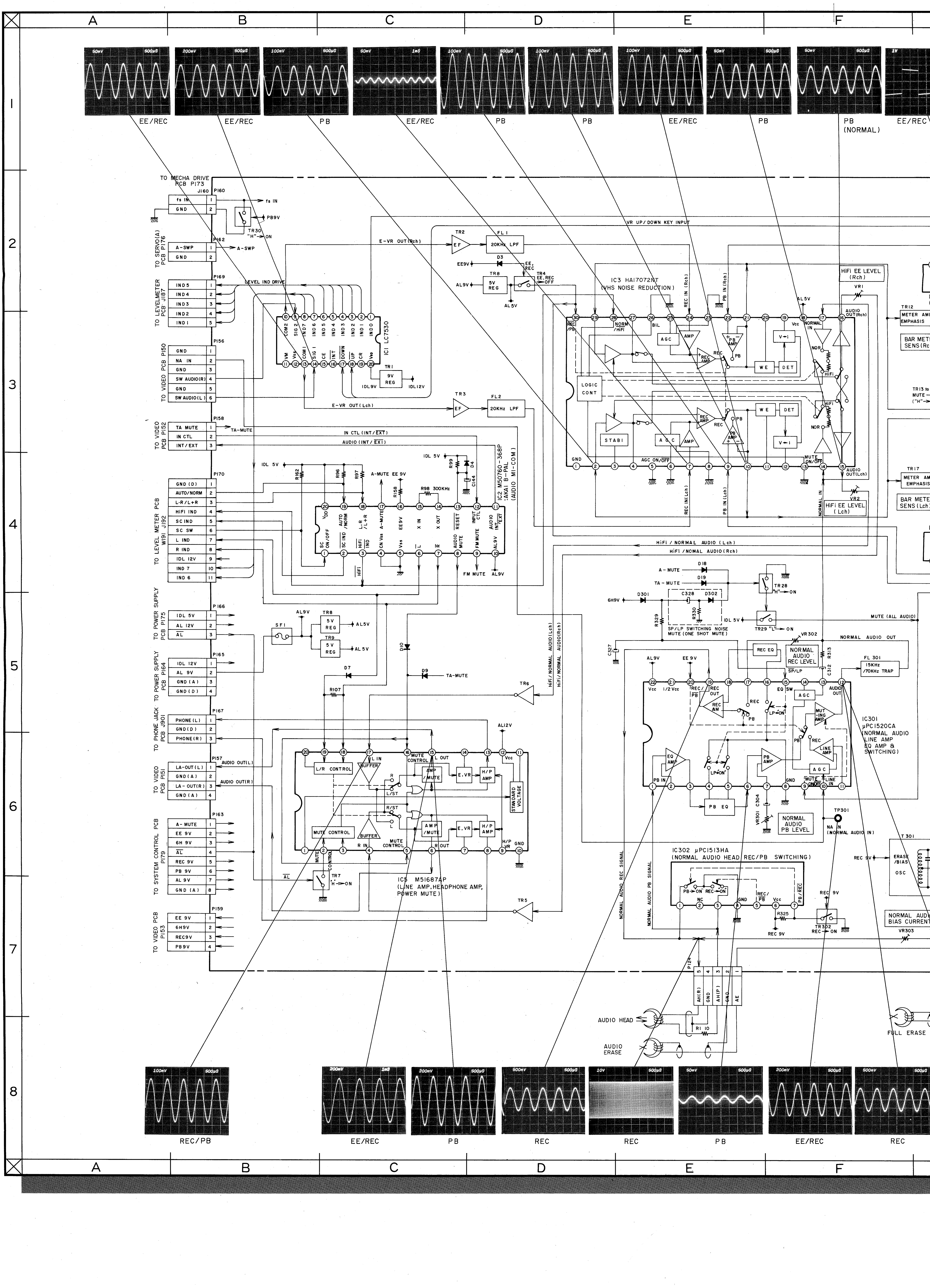

PLAY
DIRECTION
ROTARY ENCODER
OUTPUT
0V ①
0V ④
0V (GND)
0V ③
5V ②

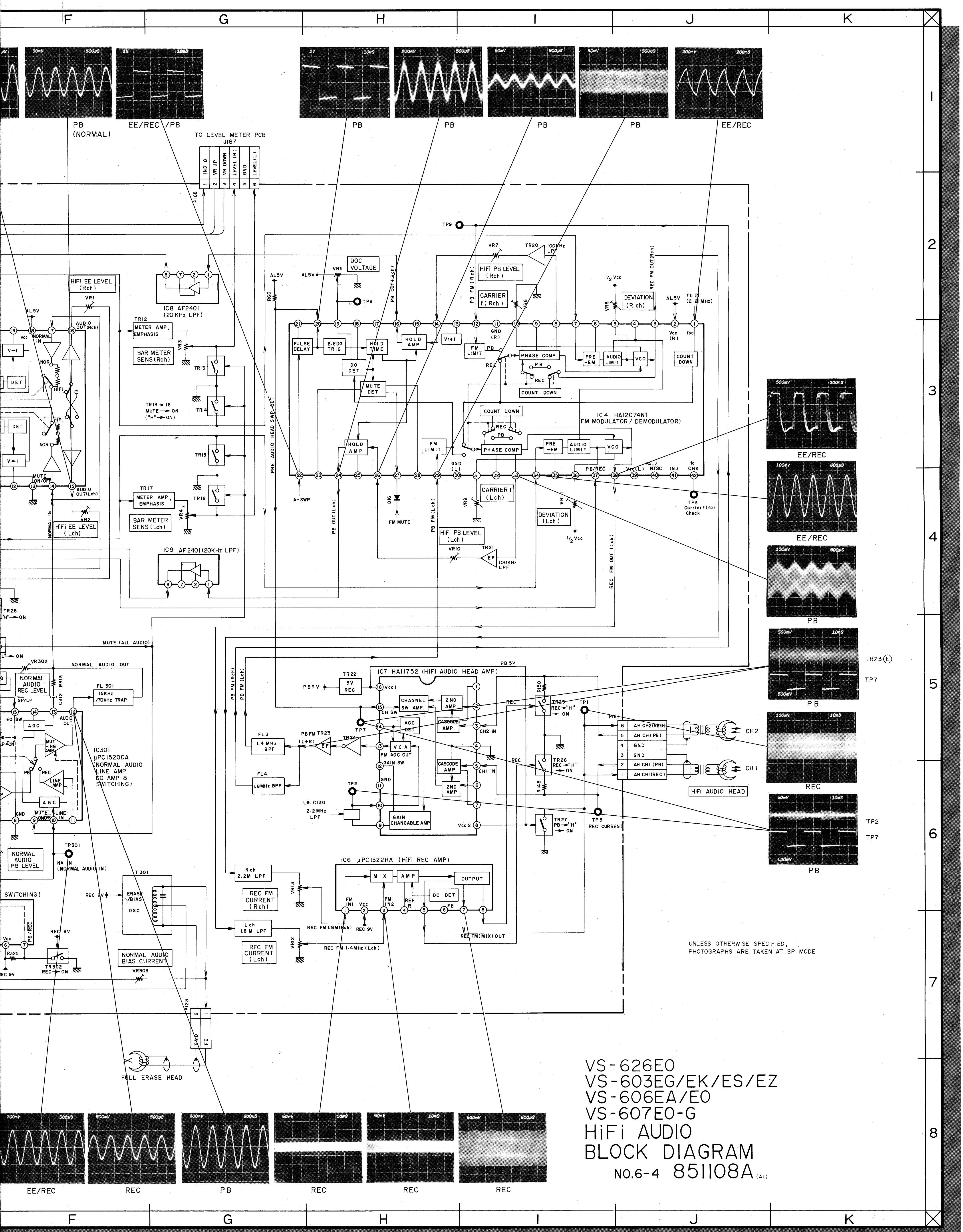
REVIEW


REVIEW
DIRECTION
STOP
DIRECTION
ROTARY ENCODER
OUTPUT
5V (0V) ① ※
0V ④
0V (GND)
0V ③
0V ②

※ FROM STOP TO PLAY : 5V
FROM REVIEW TO PLAY : (0V)

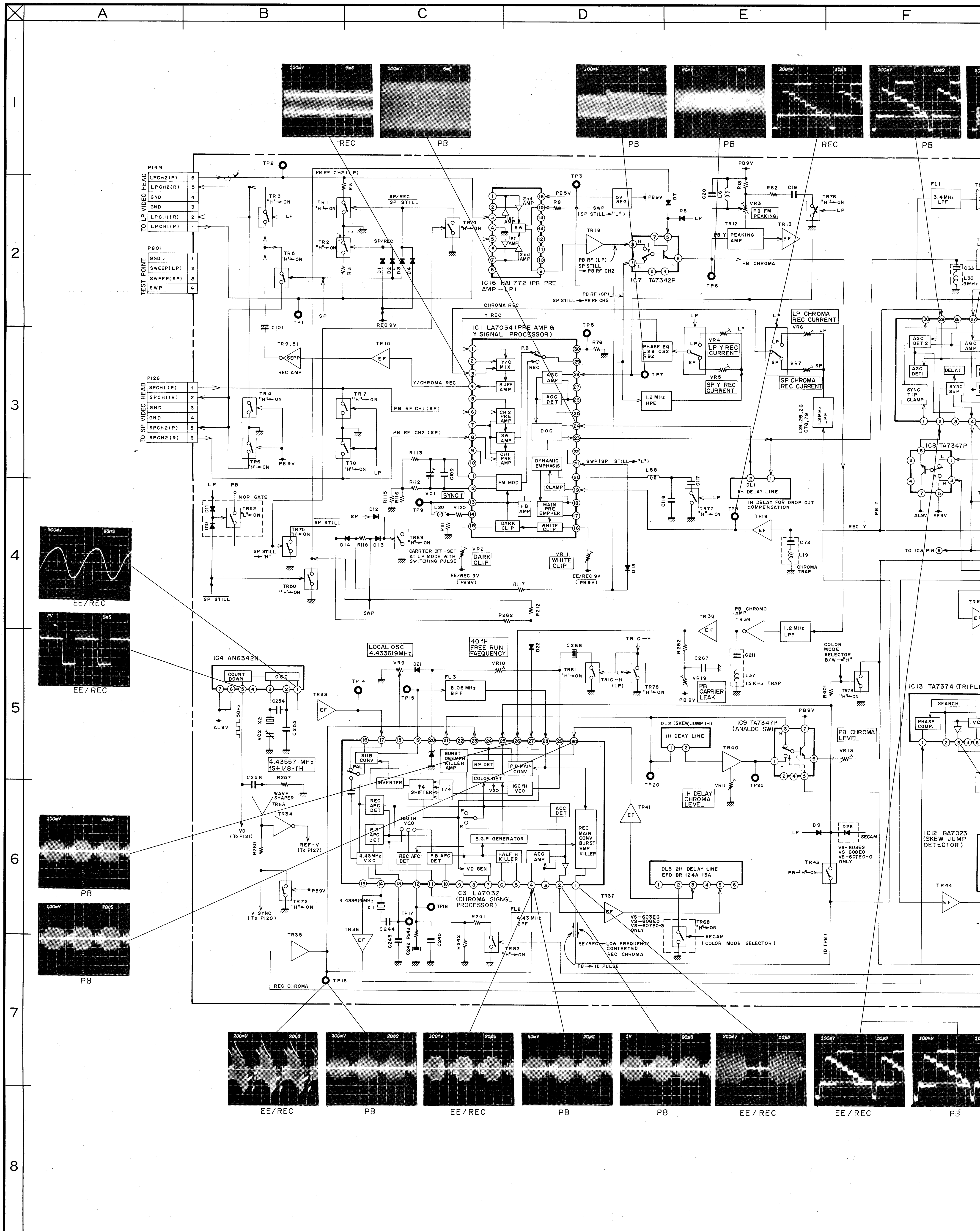
PLAY

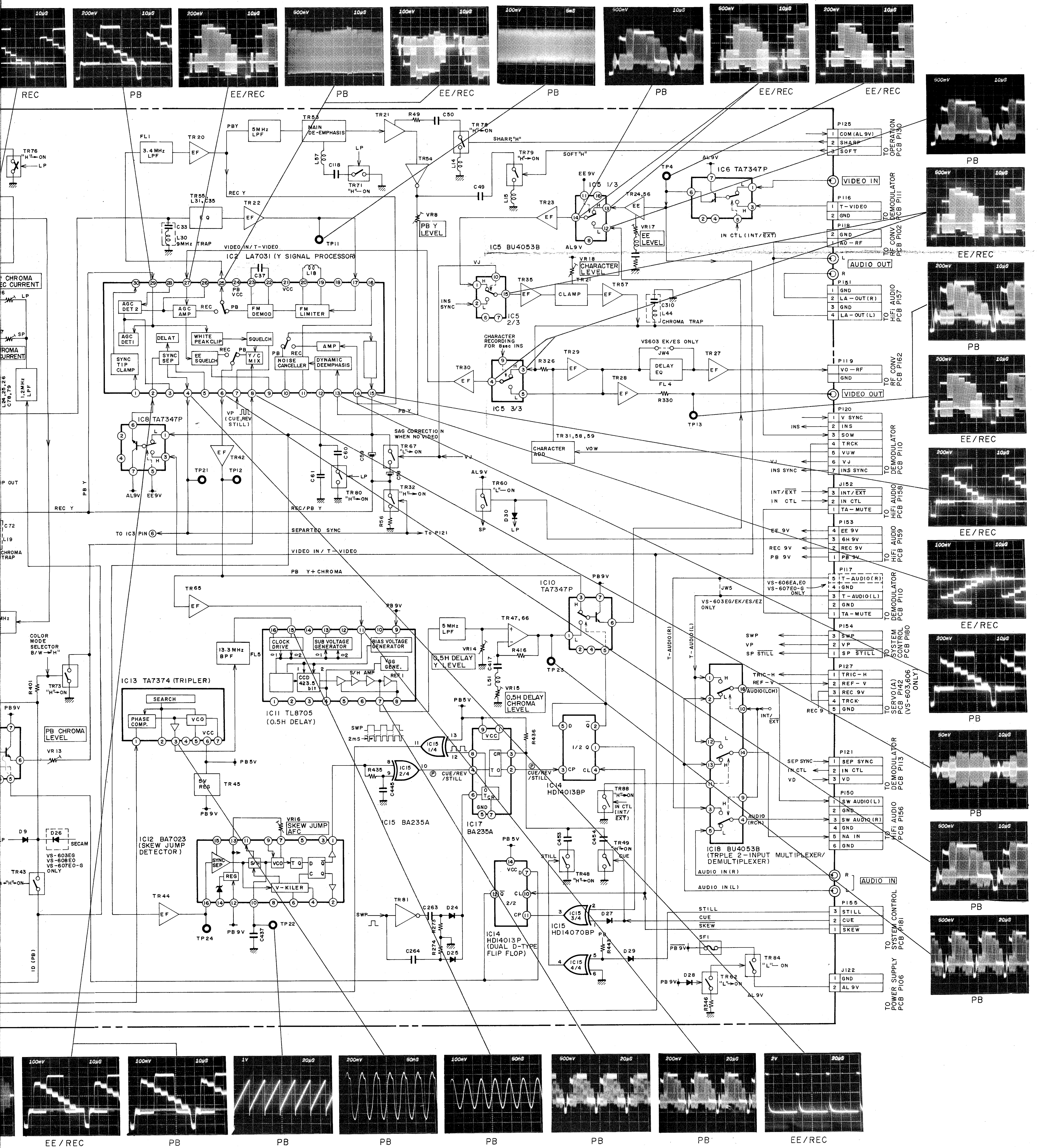

A
B
C
D
E
F
1
2
3
4
5
6
7
8
50mV 500µS
200mV 500µS
100mV 500µS
50mV 1mS
100mV 500µS
100mV 500µS
100mV 500µS
50mV 500µS
50mV 500µS
1V
EE/REC
EE/REC
PB
EE/REC
PB
PB
EE/REC
PB
PB (NORMAL)
EE/REC
TO MECHA DRIVE PCB P173
J160
P160
fs IN
GND
fs IN
PB9V
TR30 "H"→ON
TO SERVO(A) PCB P176
P162
A-SWP
GND
A-SWP
TO LEVELMETER PCB J187
P169
IND5
IND4
IND3
IND2
IND1
LEVEL IND DRIVE
IC1 LC7530
COM2
SIG 2
IND7
IND6
IND5
IND4
IND3
IND2
IND1
IND0
VM
Vss
COM1
SIG 1
CE
INT
DOWN
UP
CR
Vdd
TR1
9V REG
IDL9V
IDL12V
TO VIDEO PCB P150
P156
GND
NA IN
GND
SW AUDIO(R)
GND
SW AUDIO(L)
TO VIDEO PCB P152
P158
TA MUTE
IN CTL
INT/EXT
TA-MUTE
IN CTL (INT/EXT)
AUDIO (INT/EXT)
E-VR OUT(Rch)
E-VR OUT(Lch)
TR2
EF
FL1
20KHz LPF
TR3
EF
FL2
20KHz LPF
EE9V
D3
EE, REC
TR4
EE,REC →OFF
AL9V
TR8
5V REG
AL5V
VR UP/DOWN KEY INPUT
IC3 HA17072NT (VHS NOISE REDUCTION)
REC IN (Rch)
PB IN (Rch)
AL5V
REC/PB
NORM/HiFi
BIL
AGC
AMP
REC AMP
REC
PB
PB AMP
Vcc
NORMAL IN
AUDIO OUT(Rch)
NOR
HiFi
WE
DET
V→I
LOGIC CONT
STABI
AGC
AMP
REC AMP
REC
PB
PB AMP
WE
DET
V→I
NOR
HiFi
GND
AGC ON/OFF
MUTE ON/OFF
AUDIO OUT(Lch)
REC IN(Lch)
PB IN (Lch)
NORMAL IN
HiFi EE LEVEL (Rch)
VR1
VR2
HiFi EE LEVEL (Lch)
TR12
METER AMP EMPHASIS
BAR METER SENS(Rch)
TR13 to MUTE ("H"→
TR17
METER AMP EMPHASIS
BAR METER SENS(Lch)
TO LEVEL METER PCB W191 J192
P170
GND (D)
AUTO/NORM
L-R/L+R
HIFI IND
SC IND
SC SW
L IND
R IND
IDL 12V
IND 7
IND 6
IDL 5V
R162
R96
R97
A-MUTE EE 9V
R158
R98 300KHz
IDL 5V
R99
D4
C144
IC2 M50760-368P (AKAI B-PAL (AUDIO MI-COM)
VDD
AUTO /NORM
L-R /L+R
A-MUTE
EE9V
X IN
X OUT
RESET
INPUT CTL
AUDIO INT/EXT
SC ON/OFF
SC IND
HiFi IND
CN Vss
Vss
L
R
AUDIO MUTE
FM MUTE
AL9V
HiFi
FM MUTE
AL9V
HiFi / NORMAL AUDIO (Lch)
HiFi / NORMAL AUDIO (Rch)
TO POWER SUPPLY PCB P175
P166
IDL 5V
AL 12V
AL
SF1
AL9V
TR8
5V REG
AL5V
TR9
5V REG
AL 5V
TO POWER SUPPLY PCB P164
P165
IDL 12V
AL 9V
GND (A)
GND (D)
D10
D7
D9
TA-MUTE
R107
HiFi/NORMAL AUDIO(Lch)
HiFi/NORMAL AUDIO(Rch)
TR6
TO PHONE JACK PCB J901
P167
PHONE(L)
GND(D)
PHONE(R)
AL12V
TO VIDEO PCB P151
P157
LA-OUT(L)
GND(A)
LA-OUT(R)
GND(A)
AUDIO OUT(L)
AUDIO OUT(R)
L/R CONTROL
BUFFER
L IN
MUTE CONTROL
L OUT
AMP /MUTE
E.VR
H/P AMP
Vcc
L/ST
R/ST
STANDARD VOLTAGE
MUTE CONTROL
BUFFER
AMP /MUTE
E.VR
H/P AMP
R IN
MUTE CONTROL
R OUT
H/P VR
GND
MUTE CONTROL
TO SYSTEM CONTROL PCB P179
P163
A-MUTE
EE 9V
6H 9V
AL
REC 9V
PB 9V
AL 9V
GND (A)
AL
TR7 "H"→ON
IC5 M51687AP (LINE AMP, HEADPHONE AMP, POWER MUTE)
TR5
TO VIDEO PCB P153
P159
EE 9V
6H9V
REC9V
PB9V
A-MUTE
D18
TA-MUTE
D19
TR28 "H"→ON
6H9V
D301
C328
D302
R330
R329
IDL 5V
TR29 "L"→ON
SP/LP SWITCHING NOISE MUTE (ONE SHOT MUTE)
MUTE (ALL AUDIO)
VR302
NORMAL AUDIO OUT
C327
REC EQ
NORMAL AUDIO REC LEVEL
SP/LP
R313
C312
FL301
15KHz /70KHz TRAP
AL9V
EE 9V
Vcc
1/2 Vcc
REC/PB
REC OUT
REC AM
REC
PB
EQ SW
LP→ON
AGC
AUDIO OUT
MUTING AMP
REC
PB
LINE AMP
EQ AMP
LP→ON
PB AMP
AGC
PB IN
GND
MUTE ON/OFF
LINE IN
IC301 µPC1520CA (NORMAL AUDIO LINE AMP EQ AMP & SWITCHING)
PB EQ
VR301
C304
NORMAL AUDIO PB LEVEL
TP301
NA IN (NORMAL AUDIO IN)
T301
REC 9V
ERASE /BIAS OSC
IC302 µPC1513HA (NORMAL AUDIO HEAD REC/PB SWITCHING)
PB→ON
REC→ON
NC
GND
REC/PB
Vcc
PB/REC
R325
REC 9V
REC 9V
TR302 REC→ON
NORMAL AUDIO BIAS CURRENT
VR303
NORMAL AUDIO REC SIGNAL
NORMAL AUDIO PB SIGNAL
P124
AH(R)
GND
AH(P)
GND
AE
AUDIO HEAD
R1 10
AUDIO ERASE
FULL ERASE
100mV 500µS
200mV 1mS
200mV 500µS
500mV 500µS
10V 500µS
50mV 500µS
200mV 500µS
500mV 500µS
REC/PB
EE/REC
PB
REC
REC
PB
EE/REC
REC


F
G
H
I
J
K
1
2
3
4
5
6
7
8
PB (NORMAL)
EE/REC /PB
PB
PB
PB
PB
EE/REC
TO LEVEL METER PCB
J187
IND D
VR UP
VR DOWN
LEVEL(R)
GND
LEVEL(L)
P168
TP9
VR7
TR20
100KHz LPF
HiFi PB LEVEL (Rch)
CARRIER f(Rch)
DOC VOLTAGE
TP6
VR5
AL5V
R60
PB OUT(Rch)
PB FM (Rch)
REC FM OUT(Rch)
1/2 Vcc
DEVIATION (R ch)
VR8
fs IN (2.21MHz)
HiFi EE LEVEL (Rch)
VR1
IC8 AF2401 (20KHz LPF)
TR12
METER AMP, EMPHASIS
VR3
BAR METER SENS(Rch)
TR13
TR14
TR13 to 16 MUTE → ON ("H" → ON)
TR15
TR16
TR17
METER AMP, EMPHASIS
VR4
BAR METER SENS(Lch)
IC9 AF2401(20KHz LPF)
AUDIO OUT(Rch)
AUDIO OUT(Lch)
NORMAL IN
NOR
HiFi
DET
V→I
MUTE ON/OFF
VR2
HiFi EE LEVEL (Lch)
PULSE DELAY
B.EDG TRIG
DO DET
HOLD TIME
HOLD AMP
Vref
FM LIMIT
GND (R)
PB
REC
PHASE COMP
PRE -EM
AUDIO LIMIT
VCO
COUNT DOWN
Vcc (R)
fsc
MUTE DET
HOLD AMP
FM LIMIT
COUNT DOWN
IC4 HA12074NT FM MODULATOR/ DEMODULATOR)
PRE -EM
AUDIO LIMIT
VCO
PRE AUDIO HEAD SWP OUT
A-SWP
PB OUT (Lch)
D16
FM MUTE
PB FM(Lch)
GND (L)
VR9
CARRIER f (Lch)
HiFi PB LEVEL (Lch)
VR10
TR21
EF
100KHz LPF
DEVIATION (Lch)
VR11
1/2 Vcc
PB/REC
PAL/ Vcc(L) NTSC
INJ
fo CHK
TP3 Carrier f(fo) Check
REC FM OUT (Lch)
EE/REC
EE/REC
PB
TR28
"H" → ON
MUTE (ALL AUDIO)
VR302
NORMAL AUDIO OUT
NORMAL AUDIO REC LEVEL
R313
C312
FL 301 15KHz /70KHz TRAP
SP/LP
EQ SW
AGC
MUT -ING AMP
LINE AMP
AGC
GND
MUTE ON/OFF
LINE IN
AUDIO OUT
IC301 μPC1520CA (NORMAL AUDIO LINE AMP EQ AMP & SWITCHING)
NORMAL AUDIO PB LEVEL
TP301
NA IN (NORMAL AUDIO IN)
SWITCHING)
REC 9V
T 301
ERASE /BIAS OSC
NORMAL AUDIO BIAS CURRENT
VR303
R325
TR302 REC → ON
P123
GND
FE
FULL ERASE HEAD
PB FM(Rch)
PB FM (Lch)
PB9V
TR22 5V REG
IC7 HA11752 (HiFi AUDIO HEAD AMP)
PB 5V
Vcc1
CHANNEL SW AMP
CH SW
2ND AMP
CASCODE AMP
AGC DET
VCA
FM AGC OUT
GAIN SW
CH2 IN
CASCODE AMP
CH1 IN
2ND AMP
GAIN CHANGABLE AMP
Vcc 2
TP7
TR23
TR24
PB FM (L+R)
EF
FL3 1.4 MHz BPF
FL4 1.8MHz BPF
TP2
L9, C130 2.2MHz LPF
R150
TR25 REC → "H" → ON
TP1
TR26 REC → "H" → ON
R148
TR27 PB → "H" → ON
TP5 REC CURRENT
P161
AH CH2(REC)
AH CH(PB)
GND
GND
AH CH1(PB)
AH CH1(REC)
CH2
CH1
HiFi AUDIO HEAD
TR23(E)
TP7
PB
REC
TP2
TP7
PB
Rch 2.2M LPF
VR13
REC FM CURRENT (Rch)
Lch 1.8M LPF
VR12
REC FM CURRENT (Lch)
IC6 μPC1522HA (HiFi REC AMP)
MIX
AMP
OUTPUT
DC DET
FM IN1
Vcc
FM IN2
REF R
FB
REC FM 1.8M(Rch)
REC 9V
REC FM 1.4MHz (Lch)
REC FM(MIX) OUT
EE/REC
REC
PB
REC
REC
REC

UNLESS OTHERWISE SPECIFIED, PHOTOGRAPHS ARE TAKEN AT SP MODE

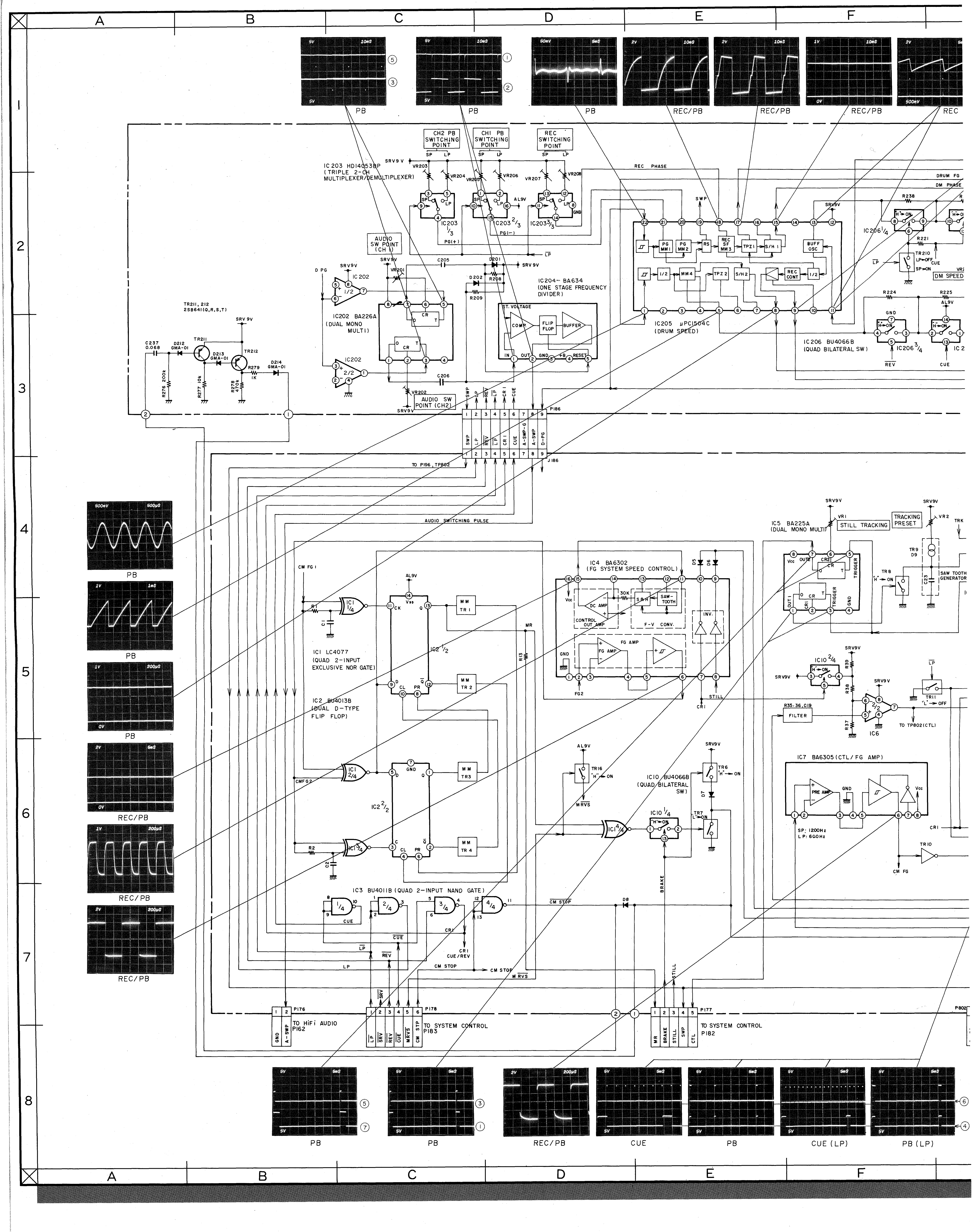
VS-626EO
VS-603EG/EK/ES/EZ
VS-606EA/EO
VS-607EO-G
HiFi AUDIO
BLOCK DIAGRAM
NO.6-4 851108A (A1)

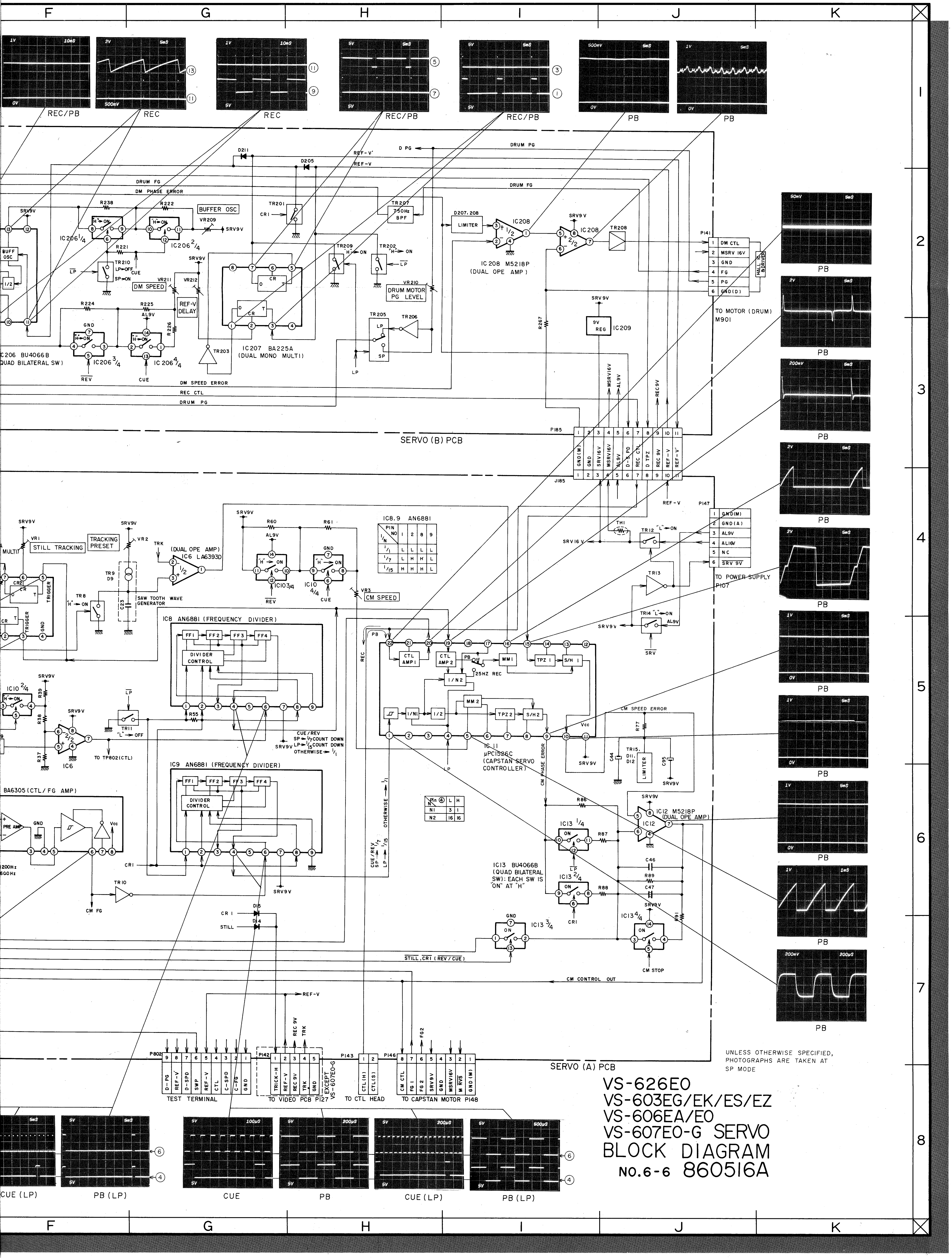

A
B
C
D
E
F
1
2
3
4
5
6
7
8
REC
PB
EE/REC
TO LP VIDEO HEAD
P149
LPCH2(P)
LPCH2(R)
GND
LPCH1(R)
LPCH1(P)
TEST POINT
P801
SWEEP(LP)
SWEEP(SP)
SWP
TO SP VIDEO HEAD
P126
SPCH1(P)
SPCH1(R)
SPCH2(P)
SPCH2(R)
TP1
TP2
TP3
TP5
TP6
TP7
TP8
TP9
TP14
TP15
TP16
TP17
TP18
TP20
TP25
IC16 HA11772 (PB PRE AMP - LP)
IC7 TA7342P
IC1 LA7034 (PRE AMP & Y SIGNAL PROCESSOR)
Y/C MIX
BUFF AMP
CH2 PRE AMP
SW AMP
CH1 PRE AMP
FM MOD
AGC AMP
AGC DET
DOC
DYNAMIC EMPHASIS
CLAMP
MAIN PRE EMPHER
FB AMP
DARK CLIP
WHITE CLIP
VR2 DARK CLIP
VR1 WHITE CLIP
SYNC f
PHASE EQ L29 C32 R92
LP Y REC CURRENT
SP Y REC CURRENT
LP CHROMA REC CURRENT
SP CHROMA REC CURRENT
1.2 MHz HPE
1.2MHz LPF
PB FM PEAKING
PB Y PEAKING AMP
PB CHROMA
DL1 1H DELAY LINE
1H DELAY FOR DROP OUT COMPENSATION
CHROMA TRAP
REC Y
PB Y
TO IC3 PIN ⑥
CARRIER OFF-SET AT LP MODE WITH SWITCHING PULSE
NOR GATE
SP STILL
SWP
EE/REC 9V (PB9V)
IC4 AN6342N
COUNT DOWN
OSC
4.433571MHz fS+1/8·fH
WAVE SHAPER
VD (To P121)
REF-V (To P127)
V SYNC (To P120)
LOCAL OSC 4.433619MHz
40fH FREE RUN FAEQUENCY
5.06MHz BPF
IC3 LA7032 (CHROMA SIGNGL PROCESSOR)
SUB CONV
INVERTER
Φ4 SHIFTER
BURST DEEMPH KILLER AMP
RP DET
PB MAIN CONV
COLOR DET
VXO
160 fH VCO
REC APC DET
PB APC DET
4.43MHz VXO
REC AFC DET
PB AFC DET
VD GEN
B.G.P GENERATOR
HALF H KILLER
ACC AMP
ACC DET
REC MAIN CONV BURST EMP KILLER
FL2 4.43MHz BPF
EE/REC→LOW FREQUENCY CONTERTED REC CHROMA
PB→ID PULSE
REC CHROMA
PB CHROMO AMP
PB CARRIER LEAK
15KHz TRAP
TRIC-H
COLOR MODE SELECTOR B/W→"H"
DL2 (SKEW JUMP 1H)
1H DEAY LINE
IC9 TA7347P (ANALOG SW)
1H DELAY CHROMA LEVEL
PB CHROMA LEVEL
DL3 2H DELAY LINE EFD BR 124A 13A
SECAM
VS-603EG
VS-606EO
VS-607EO-G
ONLY
(COLOR MODE SELECTOR)
ID (PB)
FL1 3.4MHz LPF
AGC DET 2
AGC DET1
DELAT
SYNC TIP CLAMP
SYNC SEP
IC8 TA7347P
IC13 TA7374 (TRIPLE
SEARCH
PHASE COMP.
IC12 BA7023 (SKEW JUMP DETECTOR)


F
G
H
I
J
K
1
2
3
4
5
6
7
8
REC
PB
EE/REC
PB
EE/REC
PB
PB
EE/REC
EE/REC
IC2 LA7031 (Y SIGNAL PROCESSOR)
AGC DET 2
AGC AMP
AGC DET1
SYNC TIP CLAMP
DELAT
SYNC SEP
WHITE PEAKCLIP
EE SQUELCH
SQUELCH
Y/C MIX
NOISE CANCELLER
DYNAMIC DEEMPHASIS
AMP
FM DEMOD
FM LIMITER
5MHz LPF
MAIN DE-EMPHASIS
3.4MHz LPF
EQ
TR20
TR22
TR53
TR21
TR54
TR55, L31, C35
TR71 "H"→ON
TR76 "H"→ON
TR78 "H"→ON
TR79 "H"→ON
SHARP "H"
SOFT "H"
VR8 PB Y LEVEL
TP11
VIDEO IN/T-VIDEO
REC Y
PBY
L30 9MHz TRAP
IC5 1/3
IC5 BU4053B
IC5 2/3
IC5 3/3
IC6 TA7347P
IN CTL (INT/EXT)
TR23
TR24,56
VR17 EE LEVEL
VR18 CHARACTER LEVEL
TR35
CLAMP
TR57
L44 CHROMA TRAP
TR29
TR27
TR28
DELAY EQ
FL4
R330
TP13
TP4
CHARACTER RECORDING FOR 8sec INS
VS603 EK/ES ONLY
JW4
INS SYNC
CHARACTER ADD
TR31,58,59
VOW
IC8 TA7347P
TR42
TP21
TP12
SAG CORRECTION WHEN NO VIDEO
TR67 "L"→ON
TR32 "H"→ON
TR80 "H"→ON
TR60 "L"→ON
D30
SP
LP
VP (CUE,REV STILL)
REC/PB Y
SEPARTED SYNC
TO IC3 PIN ⑥
To P121
VIDEO IN / T-VIDEO
PB Y+CHROMA
P125
COM (AL 9V)
SHARP
SOFT
TO OPERATION PCB P130
VIDEO IN
P116
T-VIDEO
GND
TO DEMODULATOR PCB P111
P118
GND
AO-RF
TO CONV PCB P102
AUDIO OUT
P151
GND
LA-OUT(R)
GND
LA-OUT(L)
TO HIFI AUDIO PCB P157
P119
VO-RF
GND
TO RF CONV PCB P162
VIDEO OUT
P120
V SYNC
INS
SOW
TRCK
VUW
VJ
INS SYNC
TO DEMODULATOR PCB P110
J152
INT/EXT
IN CTL
TA-MUTE
TO HIFI AUDIO PCB P158
P153
EE 9V
6H 9V
REC 9V
PB 9V
TO HIFI AUDIO PCB P159
P117
T-AUDIO(R)
GND
T-AUDIO(L)
GND
TA-MUTE
VS-606EA,EO
VS-607EO-G ONLY
VS-603EG/EK/ES/EZ ONLY
JW5
TO DEMODULATOR PCB P110
P154
SWP
VP
SP STILL
TO SYSTEM CONTROL PCB P180
P127
TRIC-H
REF-V
REC 9V
TRCK
GND
TO SERVO(A) PCB P142 (VS-603,606 ONLY)
P121
SEP SYNC
IN CTL
VD
TO DEMODULATOR PCB P113
P150
SW AUDIO(L)
GND
SW AUDIO(R)
GND
NA IN
GND
TO HIFI AUDIO PCB P156
AUDIO IN
AUDIO IN(R)
AUDIO IN(L)
P155
STILL
CUE
SKEW
TO SYSTEM CONTROL PCB P181
J122
GND
AL 9V
TO POWER SUPPLY PCB P106
IC18 BU4053B (TRPLE 2-INPUT MULTIPLEXER/DEMULTIPLEXER)
AUDIO(LCH)
AUDIO(RCH)
T-AUDIO(R)
T-AUDIO(L)
IC10 TA7347P
TR47,66
5MHz LPF
VR14 0.5H DELAY Y LEVEL
VR15 0.5H DELAY CHROMA LEVEL
TP23
TR65
13.3MHz BPF
FL5
IC11 TL8705 (0.5H DELAY)
CLOCK DRIVE
SUB VOLTAGE GENERATOR
BIAS VOLTAGE GENERATOR
CCD 423.5 bit
S/H AMP
VG GENE.
IC13 TA7374 (TRIPLER)
SEARCH
PHASE COMP.
VCO
TR45
5V REG
COLOR MODE SELECTOR B/W→"H"
TR73 "H"→ON
PB CHROMA LEVEL
VR13
IC12 BA7023 (SKEW JUMP DETECTOR)
VR16 SKEW JUMP AFC
SYNC SEP
REG
V-KILER
TR44
TP24
TP22
D26 SECAM
VS-603EG VS-608EO VS-607EO-G ONLY
TR43
IC15 1/4
IC15 2/4
IC15 3/4
IC15 4/4
IC15 BA235A
IC17 BA235A
IC14 HD14013BP
IC14 HD14013P (DUAL D-TYPE FLIP FLOP)
IC15 HD14070BP
CUE/REV/STILL
TR81
SWP
TR88 "H"→ON IN CTL (INT/EXT)
TR48 "H"→ON
TR49 "H"→ON
TR84 "L"→ON
TR62 "L"→ON
SF1
EE/REC
PB
PB
PB
PB
PB
PB
EE/REC

UNLESS OTHERWISE SPECIFID, PHOTOGRAPHS ARE TAKEN AT SP MODE

VS-626EO
VS-603EG/EK/ES/EZ
VS-606EA/EO
VS-607EO-G VIDEO
BLOCK DIAGRAM
NO.6-5 851109A

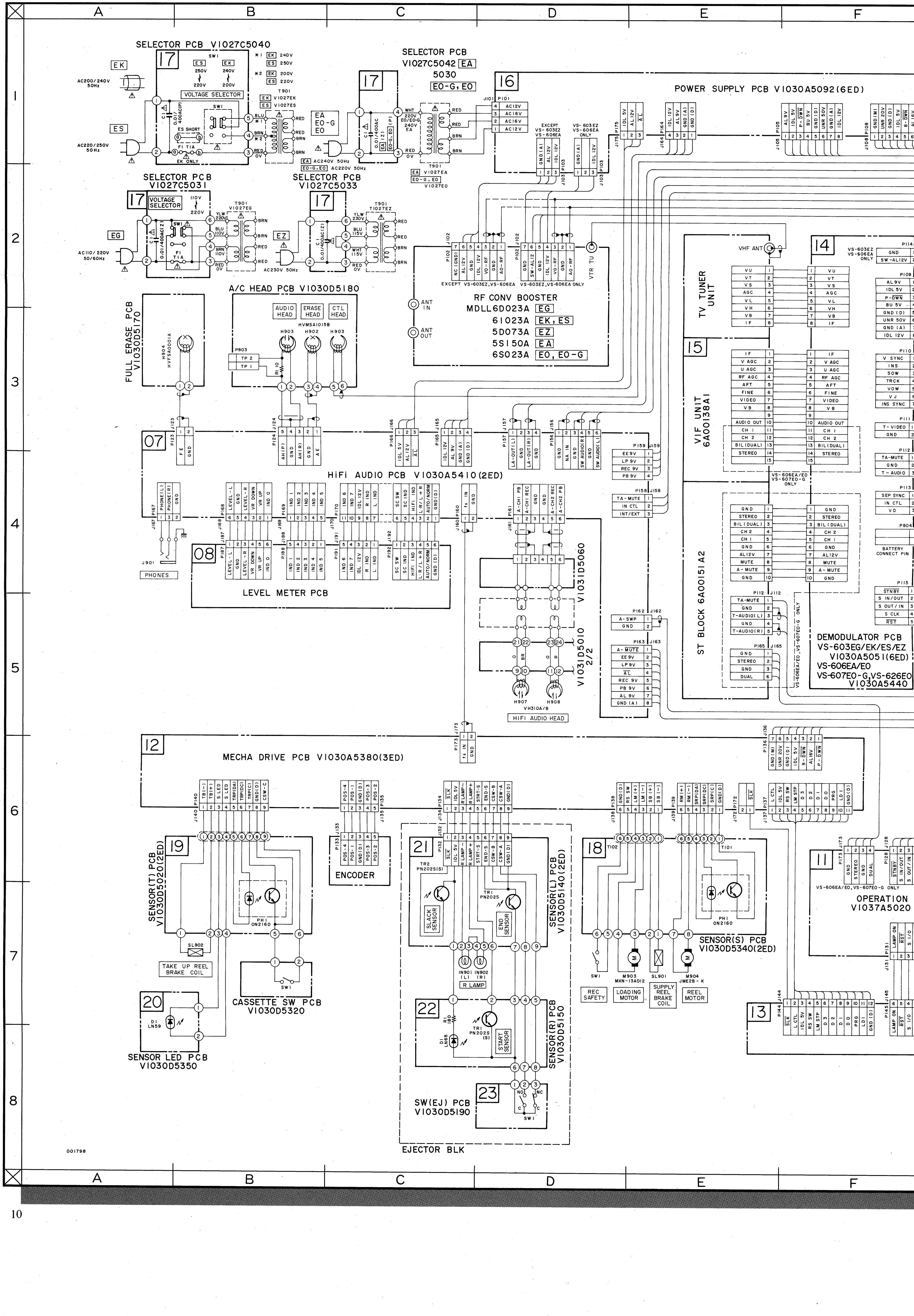

A
B
C
D
E
F
1
2
3
4
5
6
7
8
PB
REC/PB
REC
IC203 HD14053BP (TRIPLE 2-CH MULTIPLEXER/DEMULTIPLEXER)
CH2 PB SWITCHING POINT
CH1 PB SWITCHING POINT
REC SWITCHING POINT
SP
LP
SRV9V
AL9V
VR201
VR202
VR203
VR204
VR205
VR206
VR207
VR208
IC203 1/3
IC203 2/3
IC203 3/3
PG(+)
PG(−)
AUDIO SW POINT (CH1)
AUDIO SW POINT (CH2)
D PG
IC202 1/2
IC202 2/2
IC202 BA226A (DUAL MONO MULTI)
CR
C205
C206
D201
D202
R208
R209
IC204 BA634 (ONE STAGE FREQUENCY DIVIDER)
ST. VOLTAGE
COMP
FLIP FLOP
BUFFER
IN
OUT
GND
+B
RESET
TR211, 212 2SB641(Q,R,S,T)
SRV 9V
C237 0.068
D212 GMA-01
D213 GMA-01
D214 GMA-01
TR211
TR212
R276 200k
R277 10k
R278 470k
R279 1K
REC PHASE
DRUM FG
DM PHASE
SWP
PG MM1
PG MM2
RS
REC SF MM3
TPZ1
S/H 1
BUFF OSC
1/2
MM4
TPZ2
S/H2
REC CONT
IC205 μPC1504C (DRUM SPEED)
R238
R221
R224
R225
"H"→ON
IC206 1/4
IC206 3/4
TR210
LP→OFF
SP→ON
CUE
DM SPEED
GND
IC206 BU4066B (QUAD BILATERAL SW)
REV
P186
J186
SWP
LP
REV
CR1
CUE
A-SWP-G
A-SWP
D-PG
TO P196, TP802
AUDIO SWITCHING PULSE
CM FG1
CMFG2
R1
R2
C1
C2
IC1 1/4
IC1 2/4
IC1 3/4
IC1 4/4
IC1 LC4077 (QUAD 2-INPUT EXCLUSIVE NOR GATE)
IC2 1/2
IC2 2/2
IC2 BU4013B (DUAL D-TYPE FLIP FLOP)
CK
VDD
D
CL
PR
Q
MM TR1
MM TR2
MM TR3
MM TR4
MR
R13
IC4 BA6302 (FG SYSTEM SPEED CONTROL)
Vcc
DC AMP
CONTROL OUT AMP
30K
S&H
SAW-TOOTH
F-V CONV.
FG AMP
INV.
D5
D6
FG2
STILL
CR1
IC3 BU4011B (QUAD 2-INPUT NAND GATE)
1/4
2/4
3/4
4/4
CM STOP
CR1 CUE/REV
D8
BRAKE
AL9V
TR16 "H"→ON
MRVS
IC10 BU4066B (QUAD BILATERAL SW)
IC10 1/4
IC10 2/4
TR6 "H"→ON
TR7 "L"→ON
D7
IC5 BA225A (DUAL MONO MULTI)
VR1
VR2
STILL TRACKING
TRACKING PRESET
TRK
CR2
TRIGGER
OUT1
TR8 "H"→ON
TR9
D9
C23
SAW TOOTH GENERATOR
R35-36, C19
FILTER
R37
R38
R39
IC6 2/2
IC6
TR11 "L"→OFF
TO TP802(CTL)
IC7 BA6305 (CTL/FG AMP)
PRE AMP
SP: 1200Hz
LP: 600Hz
TR10
CM FG
P176
GND
A-SWP
TO HiFi AUDIO P162
P178
LP
SRV
REV
CUE
MRVS
CM STP
TO SYSTEM CONTROL P183
P177
MR
BRAKE
STILL
SW
CTL
TO SYSTEM CONTROL P182
P802
5V
10mS
50mV
5mS
2V
1V
0V
500mV
500μS
1mS
200μS
6mS
CUE (LP)
PB (LP)

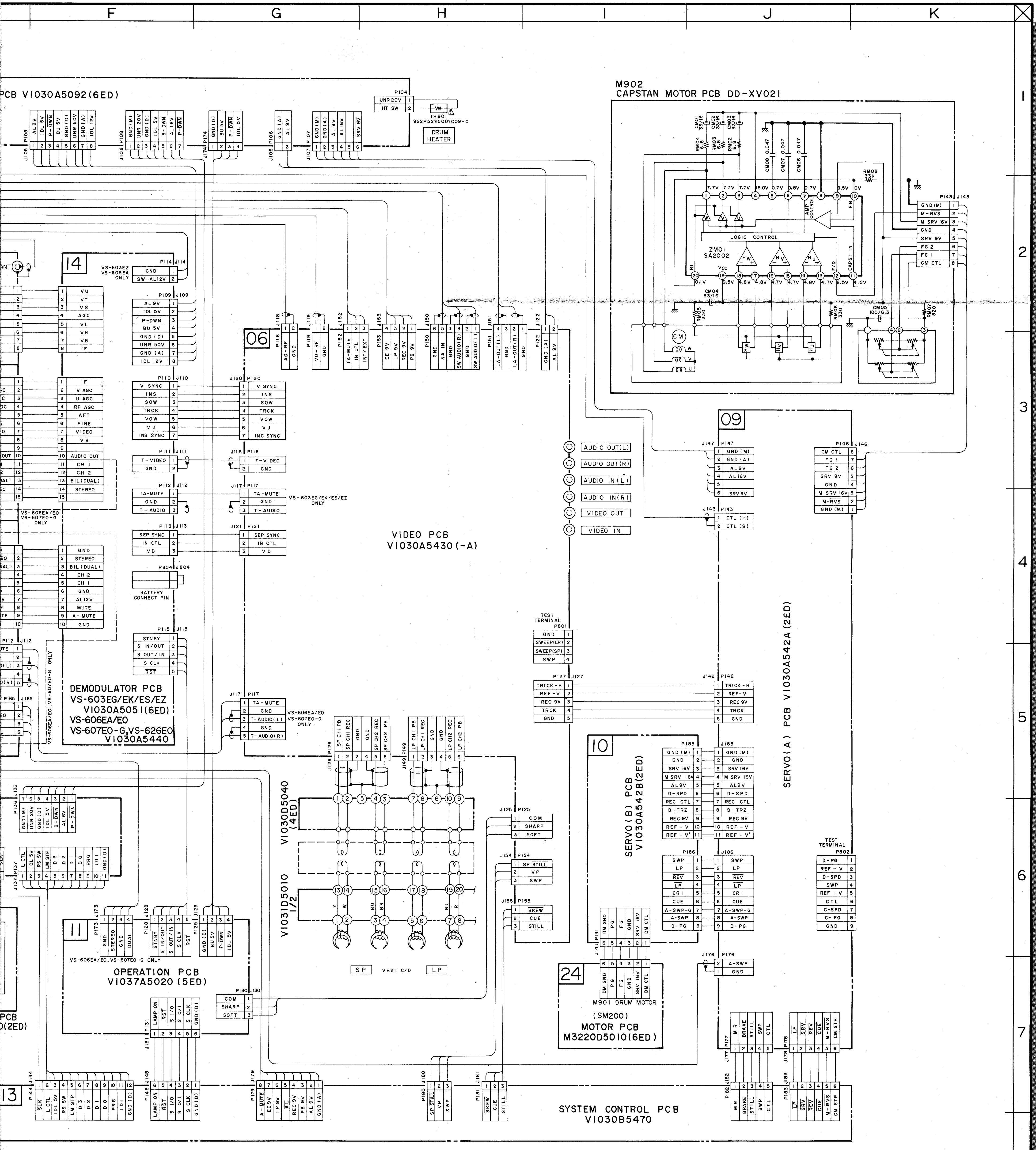

F
G
H
I
J
K
1
2
3
4
5
6
7
8
REC/PB
REC
REC
REC/PB
REC/PB
PB
PB
DRUM PG
D PG
REF-V'
REF-V
D211
D205
DRUM FG
DM PHASE ERROR
R238
R222
BUFFER OSC
VR209
SRV9V
IC206 1/4
IC206 2/4
BUFF OSC
1/2
TR201
CR1
TR207
750Hz BPF
D207, 208
LIMITER
IC208
IC208 M5218P
(DUAL OPE AMP)
TR208
P141
DM CTL
MSRV 16V
GND
FG
PG
GND(D)
HALL IC & DRIVER
TO MOTOR (DRUM) M901
TR210
LP→OFF CUE
SP→ON
R221
DM SPEED
VR211
VR212
REF-V DELAY
TR209
TR202
DRUM MOTOR PG LEVEL
VR210
R224
R225
AL9V
R226
IC206 3/4
IC206 4/4
REV
CUE
IC206 BU4066B
(QUAD BILATERAL SW)
TR203
IC207 BA225A
(DUAL MONO MULTI)
TR205
TR206
SP
LP
9V REG
IC209
R267
DM SPEED ERROR
REC CTL
DRUM PG
SERVO (B) PCB
P185
J185
GND(M)
GND
SRV16V
MSRV16V
AL9V
D-SPD
REC CTL
D TPZ
REC 9V
REF-V
REF-V'
P147
GND(M)
GND(A)
AL9V
AL16V
NC
SRV 9V
TO POWER SUPPLY P107
TH1
TR12
"L"→ON
SRV16V
TR13
TR14 "L"→ON
SRV
VR1
STILL TRACKING
TRACKING PRESET
VR2
TRK
(DUAL OPE AMP)
IC6 LA6393D
TR9 D9
C23
SAW TOOTH WAVE GENERATOR
TR8
"H"→ON
MULTI
CR2
TRIGGER
R60
R61
IC10 3/4
IC10 4/4
VR3
CM SPEED
IC8,9 AN6881
PIN / 1/N / NO / 1 / 2 / 8 / 9
1/1 L L L L
1/7 L H H L
1/15 H H H L
IC8 AN6881 (FREQUENCY DIVIDER)
FF1
FF2
FF3
FF4
DIVIDER CONTROL
IC10 2/4
R39
R38
R37
IC6
TR11
"L"→OFF
R55
TO TP802(CTL)
CUE/REV
SP→1/7 COUNT DOWN
LP→1/15 COUNT DOWN
OTHERWISE→1/1
IC9 AN6881 (FREQUENCY DIVIDER)
BA6305 (CTL/FG AMP)
PRE AMP
1200Hz
600Hz
CR1
TR10
CM FG
PB
REC
CTL AMP1
CTL AMP2
MM1
TPZ1
S/H1
1/N2
25HZ REC
MM2
1/N1
1/2
TPZ2
S/H2
IC11
µPC1526C
(CAPSTAN SERVO CONTROLLER)
CM SPEED ERROR
R77
TR15, D11, D12
LIMITER
C44
C95
CM PHASE ERROR
Pin④ L H
N1 3 1
N2 16 16
R86
IC12 M5218P
(DUAL OPE AMP)
IC13 1/4
IC13 2/4
IC13 3/4
IC13 4/4
R87
R88
C46
R89
C47
R91
IC13 BU4066B
(QUAD BILATERAL SW): EACH SW IS "ON" AT "H"
D15
D14
STILL
STILL, CR1 (REV/CUE)
CM STOP
CM CONTROL OUT
REF-V
REC 9V
TRK
FG2
P802
D-PG
REF-V'
D-SPD
SWP
CTL
C-SPD
C-FG
GND
TEST TERMINAL
P142
TRICK-H
REF-V
REC 9V
TRK
GND
EXCEPT VS-607EO-G
TO VIDEO PCB P127
P143
CTL(H)
CTL(S)
TO CTL HEAD
P146
CM CTL
FG1
FG2
SRV9V
MSRV16V
M RVS
GND(M)
TO CAPSTAN MOTOR P148
SERVO (A) PCB
CUE (LP)
PB (LP)
CUE
PB
CUE (LP)
PB (LP)

UNLESS OTHERWISE SPECIFIED,
PHOTOGRAPHS ARE TAKEN AT
SP MODE

VS-626EO
VS-603EG/EK/ES/EZ
VS-606EA/EO
VS-607EO-G SERVO
BLOCK DIAGRAM

NO.6-6 860516A


SELECTOR PCB V1027C5040
VOLTAGE SELECTOR
AC200/240V 50Hz
AC220/250V 50Hz
SELECTOR PCB V1027C5042 EA
5030 EO-G, EO
SELECTOR PCB V1027C5031
SELECTOR PCB V1027C5033
AC110/220V 50/60Hz
AC230V 50Hz
POWER SUPPLY PCB V1030A5092(6ED)
FULL ERASE PCB V1030D5170
A/C HEAD PCB V1030D5180
AUDIO HEAD
ERASE HEAD
CTL HEAD
RF CONV BOOSTER
MDLL6D023A EG
61023A EK, ES
5D073A EZ
5S150A EA
6S023A EO, EO-G
ANT IN
ANT OUT
VTR TU
VHF ANT
TV TUNER UNIT
VIF UNIT 6A00138A1
ST BLOCK 6A00151A2
HiFi AUDIO PCB V1030A5410(2ED)
LEVEL METER PCB
PHONES
V1031D5060
V1031D5010 2/2
HiFi AUDIO HEAD
DEMODULATOR PCB
VS-603EG/EK/ES/EZ V1030A5051(6ED)
VS-606EA/EO
VS-607EO-G, VS-626EO V1030A5440
MECHA DRIVE PCB V1030A5380(3ED)
SENSOR(T) PCB V1030D5020(2ED)
TAKE UP REEL BRAKE COIL
SENSOR LED PCB V1030D5350
CASSETTE SW PCB V1030D5320
ENCODER
SLACK SENSOR
END SENSOR
SENSOR(L) PCB V1030D5140(2ED)
R LAMP
START SENSOR
SENSOR(R) PCB V1030D5150
SW(EJ) PCB V1030D5190
EJECTOR BLK
SENSOR(S) PCB V1030D5340(2ED)
REC SAFETY
LOADING MOTOR
SUPPLY REEL BRAKE COIL
REEL MOTOR
OPERATION V1037A5020
BATTERY CONNECT PIN
001798


PCB V1030A5092(6ED)
M902
CAPSTAN MOTOR PCB DD-XV021
ZM01
SA2002
LOGIC CONTROL
AMP CONTROL
DRUM HEATER
TH901
922P52E500YC09-C
14
VS-603EZ
VS-606EA ONLY
06
VIDEO PCB
V1030A5430(-A)
AUDIO OUT(L)
AUDIO OUT(R)
AUDIO IN(L)
AUDIO IN(R)
VIDEO OUT
VIDEO IN
09
SERVO(A) PCB V1030A542A(2ED)
10
SERVO(B) PCB
V1030A542B(2ED)
DEMODULATOR PCB
VS-603EG/EK/ES/EZ
V1030A5051(6ED)
VS-606EA/EO
VS-607EO-G,VS-626EO
V1030A5440
VS-606EA/EO,VS-607EO-G ONLY
VS-603EG/EK/ES/EZ ONLY
BATTERY CONNECT PIN
TEST TERMINAL
P801
V1030D5040
(4ED)
V1031D5010
1/2
SP
VH211 C/D
LP
11
OPERATION PCB
V1037A5020(5ED)
24
M901 DRUM MOTOR
(SM200)
MOTOR PCB
M3220D5010(6ED)
TEST TERMINAL
P802
13
SYSTEM CONTROL PCB
V1030B5470
F
G
H
I
J
K
1
2
3
4
5
6
7
8

WARNING: ⚠INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

AVERTISSEMENT: ⚠IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDEES PAR LE FABRICANT

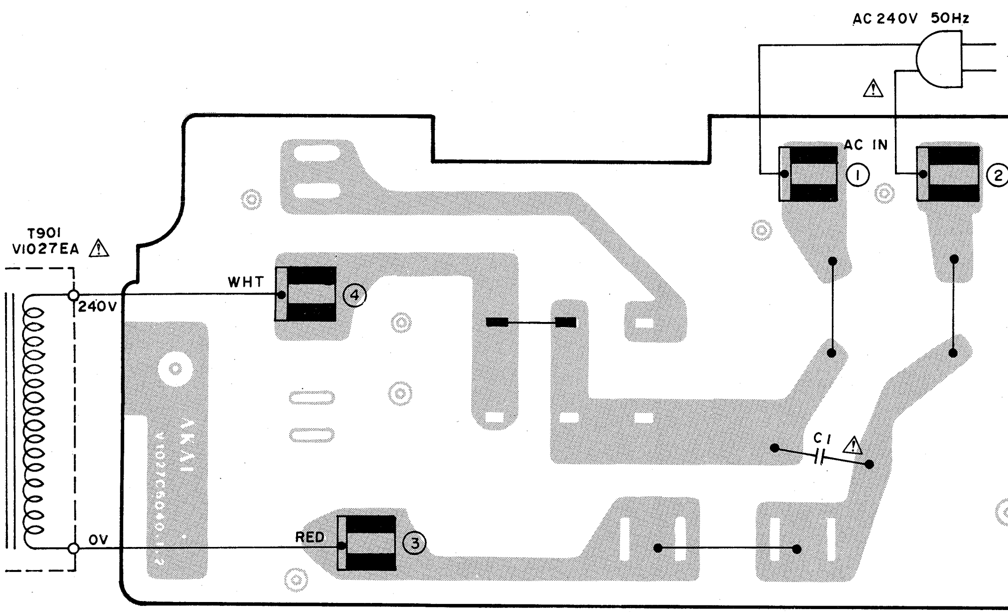
NOTE

UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS 1/4W(J)
ALL CAPACITORS IN µF 50WV(J)
POWER TRANSFORMER IS DIFFERENT
ACCORDING TO AREA

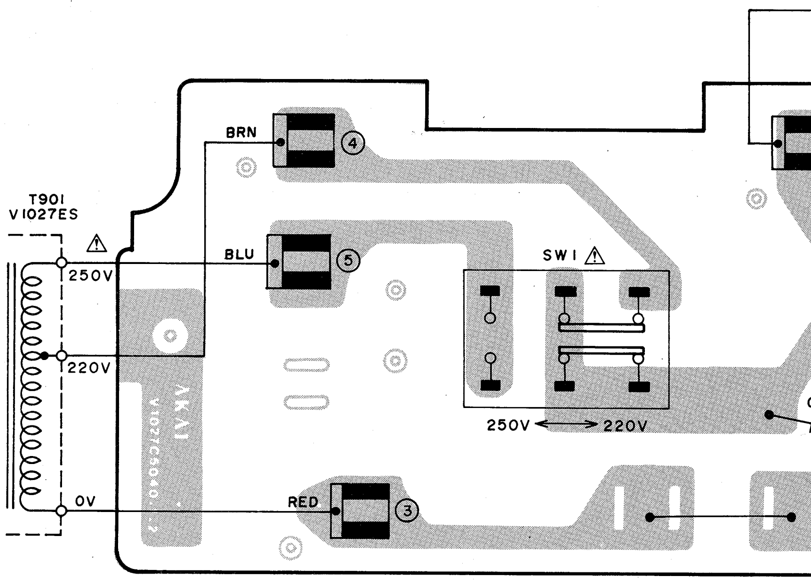
VS-626EO
VS-603EG/EK/ES/EZ
VS-606EA/EO
VS-607EO-G
CONNECTION DIAGRAM

NO.14-1 860517A

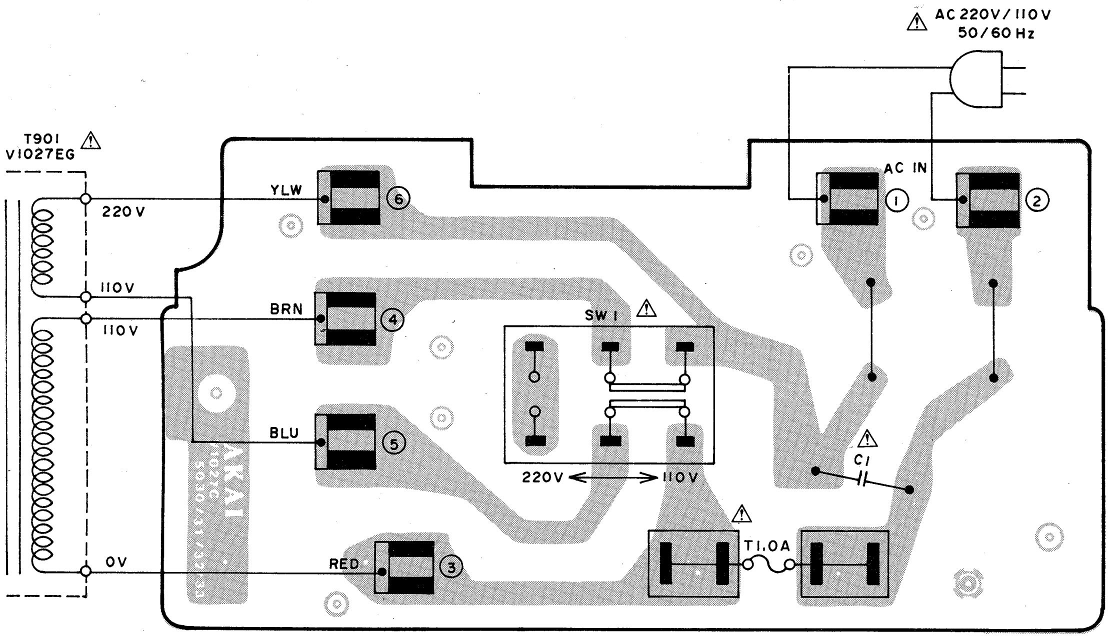
2


AC 240V 50Hz
AC IN
①
②
T901
V1027EA
WHT
④
240V
0V
RED
③
C1
AKAI

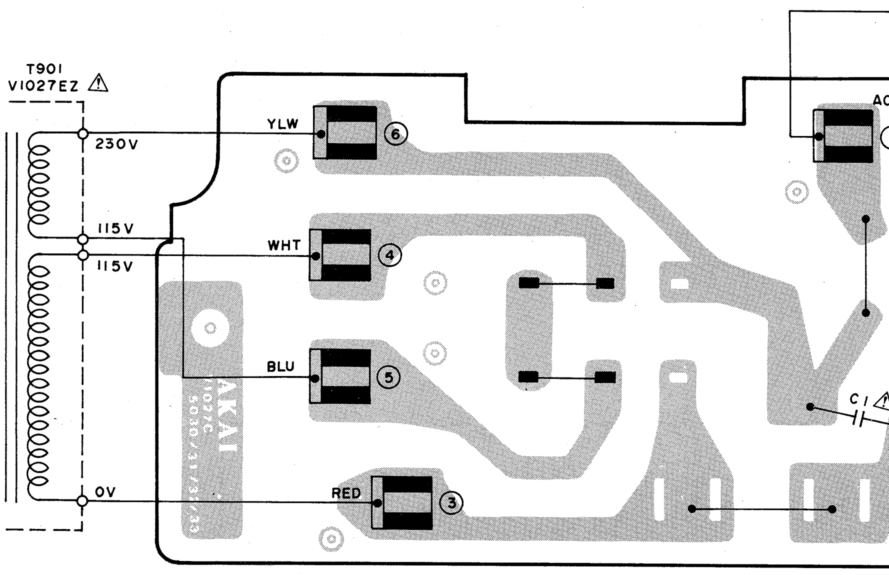
SELECTOR PCB V1027C5042 EA


T901
V1027ES
BRN
④
BLU
⑤
250V
220V
SW1
250V ⟷ 220V
0V
RED
③
AKAI

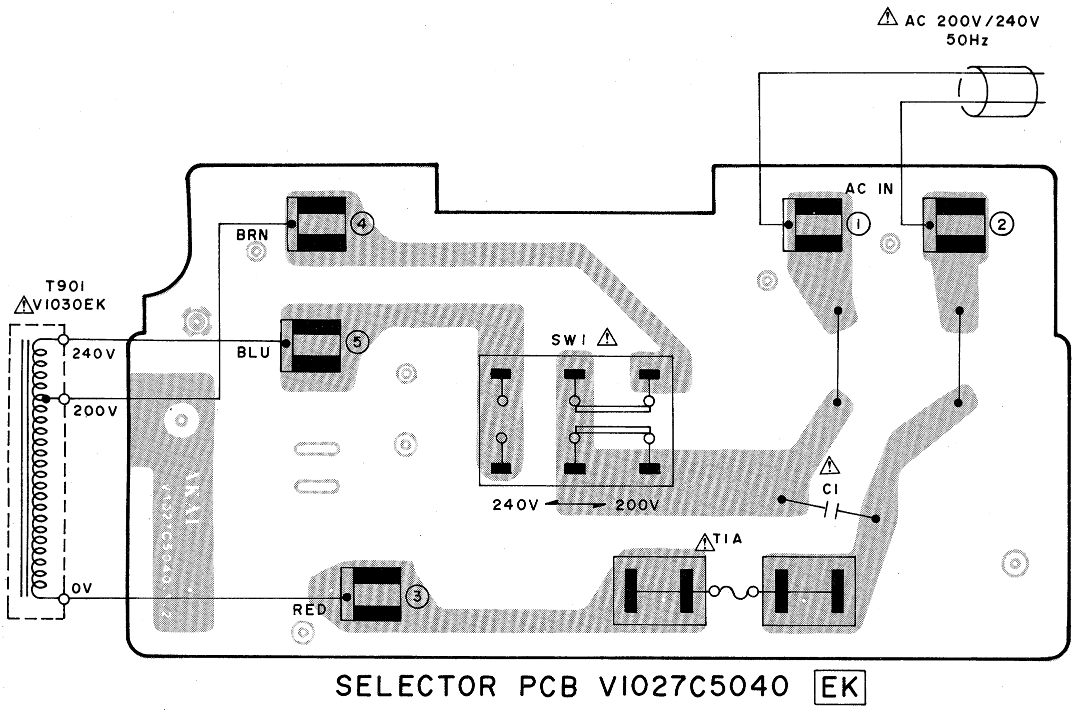
SELECTOR PCB V1027C5042 ES


AC 220V/110V
50/60Hz
T901
V1027EG
YLW
⑥
AC IN
①
②
220V
110V
110V
BRN
④
SW1
BLU
⑤
C1
220V ⟷ 110V
T1.0A
0V
RED
③
AKAI

SELECTOR PCB V1027C5031 EG


T901
V1027EZ
YLW
⑥
AC
230V
115V
115V
WHT
④
BLU
⑤
C1
0V
RED
③
AKAI

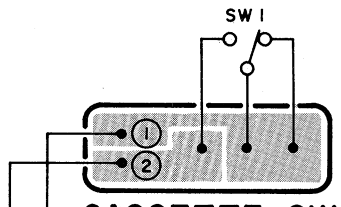
SELECTOR PCB V1027C5033 EZ


AC 200V/240V
50Hz
AC IN
①
②
BRN
④
T901
V1030EK
BLU
⑤
SW1
240V
200V
C1
240V → 200V
T1A
0V
RED
③
AKAI

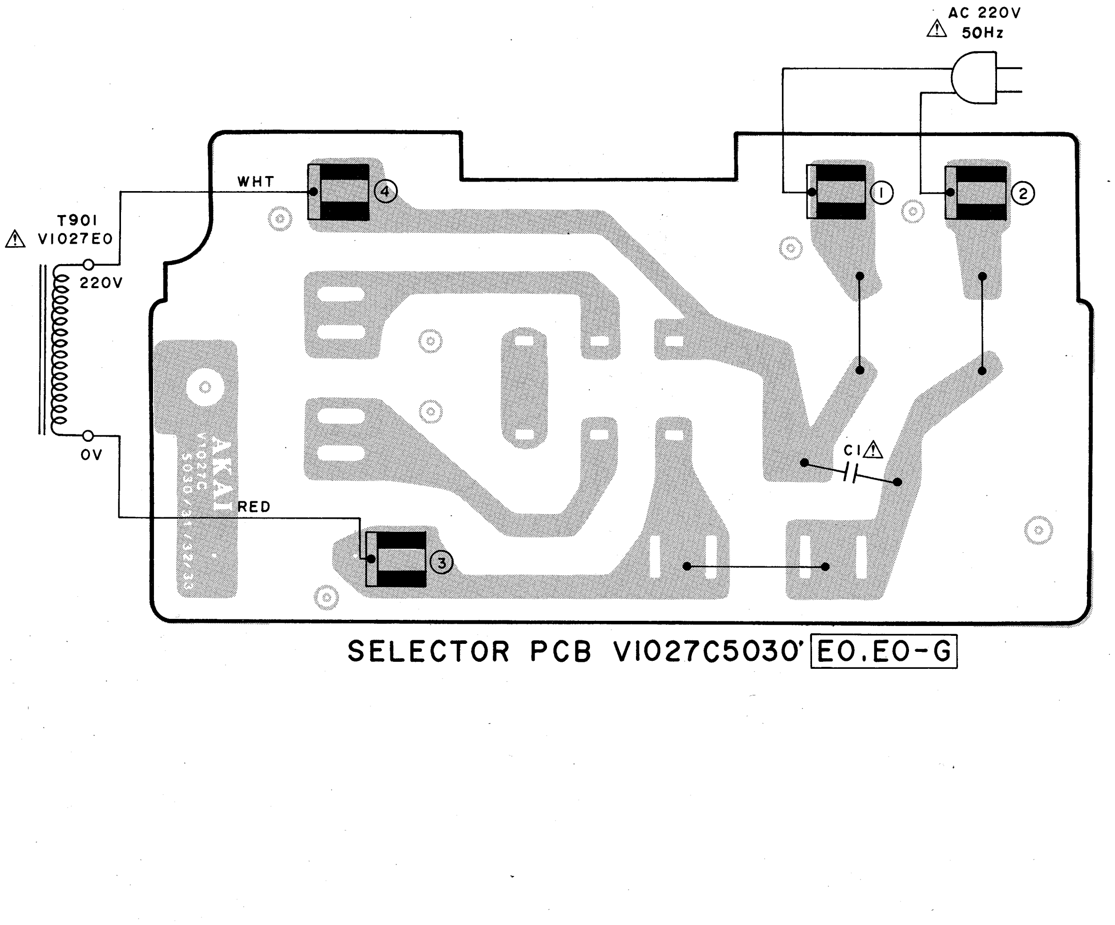
SELECTOR PCB V1027C5040 EK

WARNING: ⚠INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

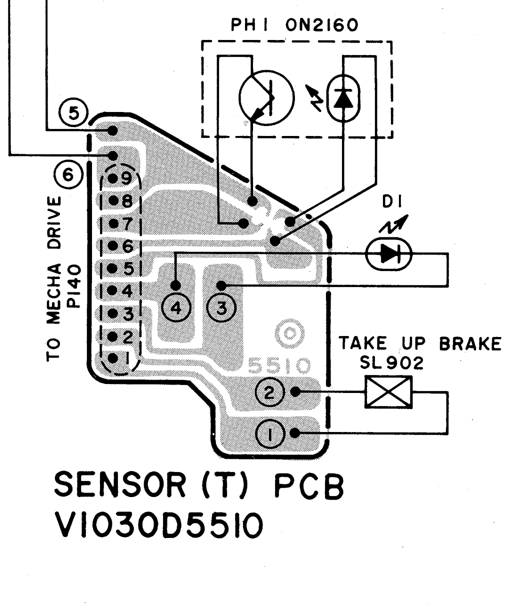
AVERTISSEMENT: ⚠IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDEES PAR LE FABRICANT



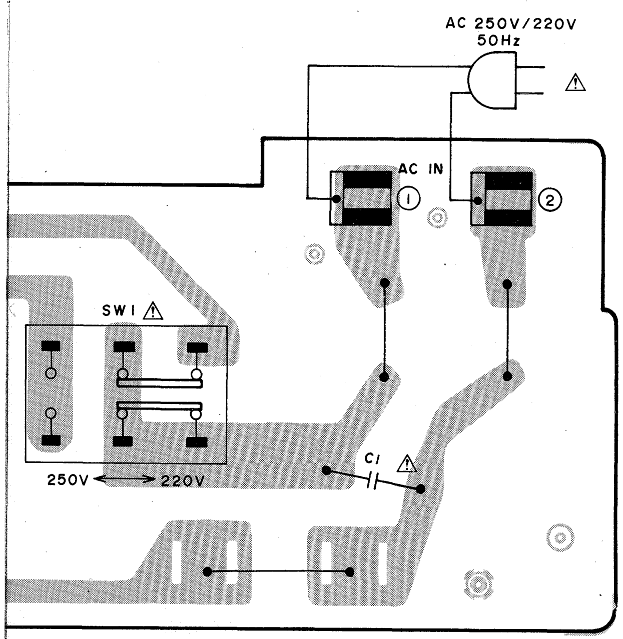
CASSETTE SW PCB
V1030D5320


AC 220V
50Hz
WHT
④
AC IN
①
②
T901
V1027E0
220V
0V
C1
RED
③
AKAI

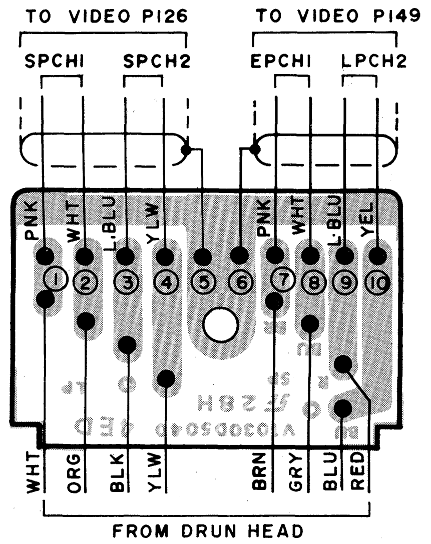
SELECTOR PCB V1027C5030 E0, E0-G


PH1 ON2160
⑤
⑥
9
8
7
6
5
4
3
2
1
TO MECHA DRIVE P140
D1
④
③
5510
TAKE UP BRAKE
SL902
②
①

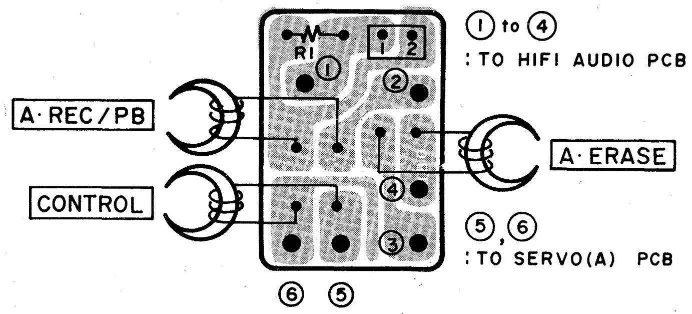
SENSOR (T) PCB
V1030D5510


AC 250V/220V
50Hz
AC IN
①
②
SW1 ⚠
C1 ⚠
250V
220V

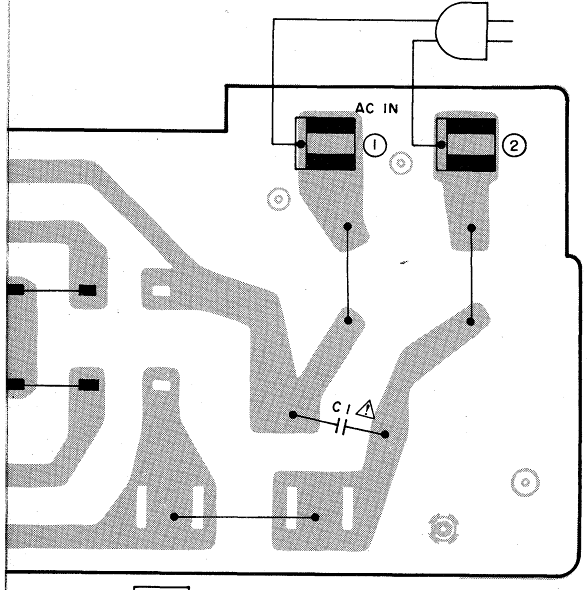
27C5042 ES


TO VIDEO P126
TO VIDEO P149
SPCH1
SPCH2
EPCH1
LPCH2
PNK
WHT
L.BLU
YLW
PNK
WHT
L.BLU
YEL
①②③④⑤⑥⑦⑧⑨⑩
WHT
ORG
BLK
YLW
BRN
GRY
BLU
RED
FROM DRUN HEAD

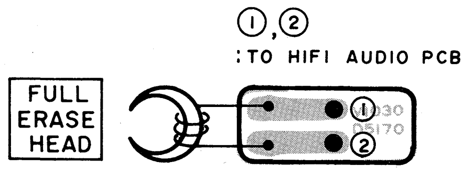
JUNCTION PCB
V1030D5040(4ED)


① to ④
: TO HIFI AUDIO PCB
R1
A·REC/PB
CONTROL
A·ERASE
⑤,⑥
: TO SERVO(A) PCB
⑥ ⑤

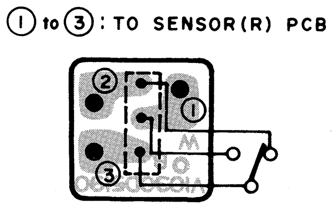
A/C HEAD PCB
V1030D5180


⚠ AC 230V/115V 50Hz
AC IN
①
②
C1 ⚠

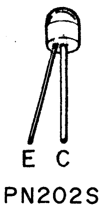
C5033 EZ


①,②
: TO HIFI AUDIO PCB
FULL
ERASE
HEAD
V1030
D5170

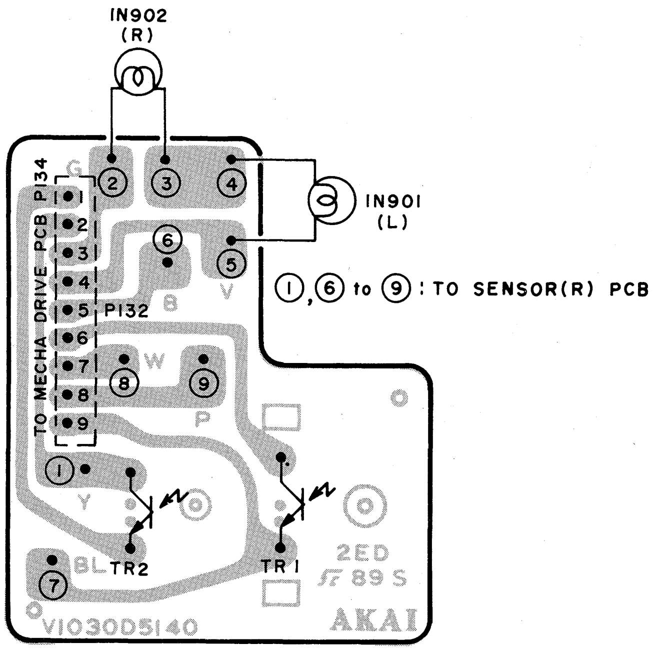
FULL ERASE PCB
V1030D5170


① to ③ : TO SENSOR(R) PCB
②
①
③

SWITCH(EJ) PCB
V1030D5190



TR1,2---PN202S

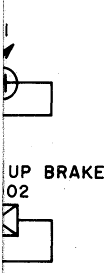

IN902
(R)
IN901
(L)
TO MECHA DRIVE PCB P134
P132
①,⑥ to ⑨ : TO SENSOR(R) PCB
TR2
TR1
2ED
89S
V1030D5140
AKAI

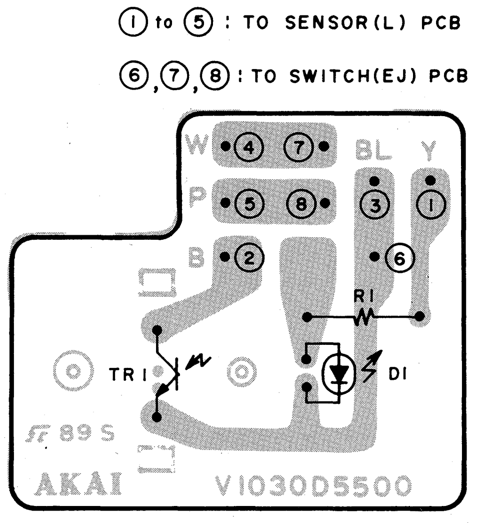
SENSOR(L) PCB
V1030D5140(2ED)

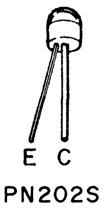
IPONENTS FOR CONTINUED SAFETY,
NENTS ONLY WITH MANUFACTURER'S

NTS CRITIQUES DE SÉCURITÉ.
CURITÉ DE L'APPAREIL,
ECOMMANDEES PAR LE FABRICANT

B

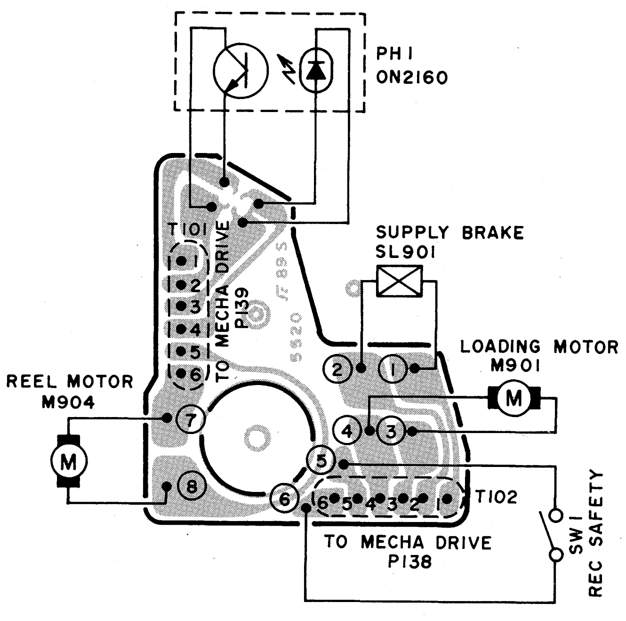



① to ⑤ : TO SENSOR(L) PCB
⑥,⑦,⑧ : TO SWITCH(EJ) PCB
W ④ ⑦ BL Y
P ⑤ ⑧ ③ ①
B ②
⑥
R1
TR1
D1
89S
AKAI
V1030D5500

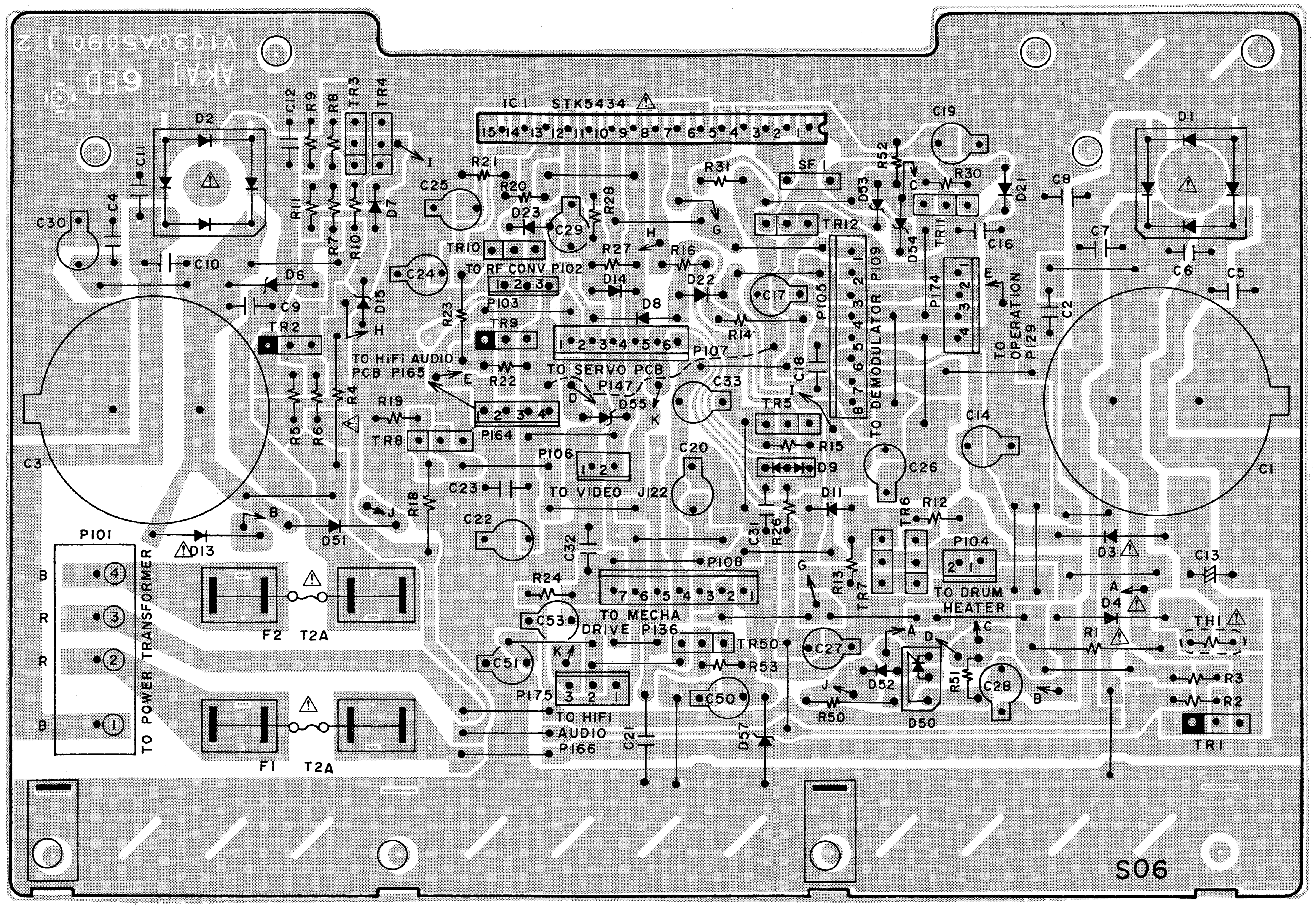


TR1---PN202S

SENSOR(R) PCB V1030D5500

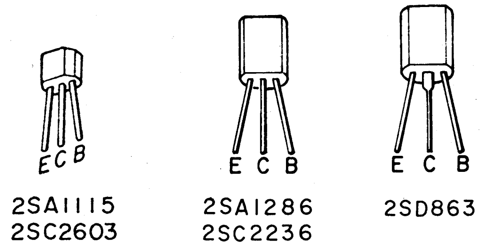

PH1
ON2160
T101
TO MECHA DRIVE P139
SUPPLY BRAKE
SL901
LOADING MOTOR
M901
REEL MOTOR
M904
T102
TO MECHA DRIVE
P138
SW1
REC SAFETY

SENSOR(S) PCB
V1030D5520


V1030A5090.1.2
AKAI 6ED
IC1 STK5434 ⚠
15 14 13 12 11 10 9 8 7 6 5 4 3 2 1
D1
D2
C1
C3
C30
C4
C11
C10
C12
R9
R8
TR3
TR4
R11
R7
R10
D7
D6
C9
D15
TR2
R5
R6
R4
TR8
R19
P164
TO HiFi AUDIO PCB P165
R21
C25
R20
D23
C29
R28
TR10
C24
TO RF CONV P102
P103
TR9
R23
R22
D14
D8
R27
R16
D22
TO SERVO PCB
P147
D55
P107
C33
R31
SF1
TR12
C17
R14
C18
P105
TO DEMODULATOR P109
P174
TO OPERATION P129
R52
D53
D54
R30
TR11
D21
C8
C16
C19
C7
C6
C5
C2
TR5
R15
D9
C14
C26
C20
P106
TO VIDEO J122
C23
C22
R18
D51
D13
P101
TO POWER TRANSFORMER
B
R
R
B
F2 T2A
F1 T2A
C32
C31
R26
D11
TR6
R12
P104
TO DRUM HEATER
D3 ⚠
C13
D4 ⚠
R1
TH1 ⚠
R3
R2
TR1
R24
P108
R13
TR7
C53
TO MECHA DRIVE P136
C51
TR50
R53
C27
D52
R51
C28
D50
R50
P175
TO HIFI AUDIO P166
C21
C50
D57
S06

POWER SUPPLY PCB V1030A5092 (6ED)

TR1, 2 ---------- 2SA1115
TR3, 4, 5, 7, 8, 10 --- 2SC2603
TR6, 11, 12 -------- 2SC2236
TR9 ------------ 2SA1286
TR50 ----------- 2SD863

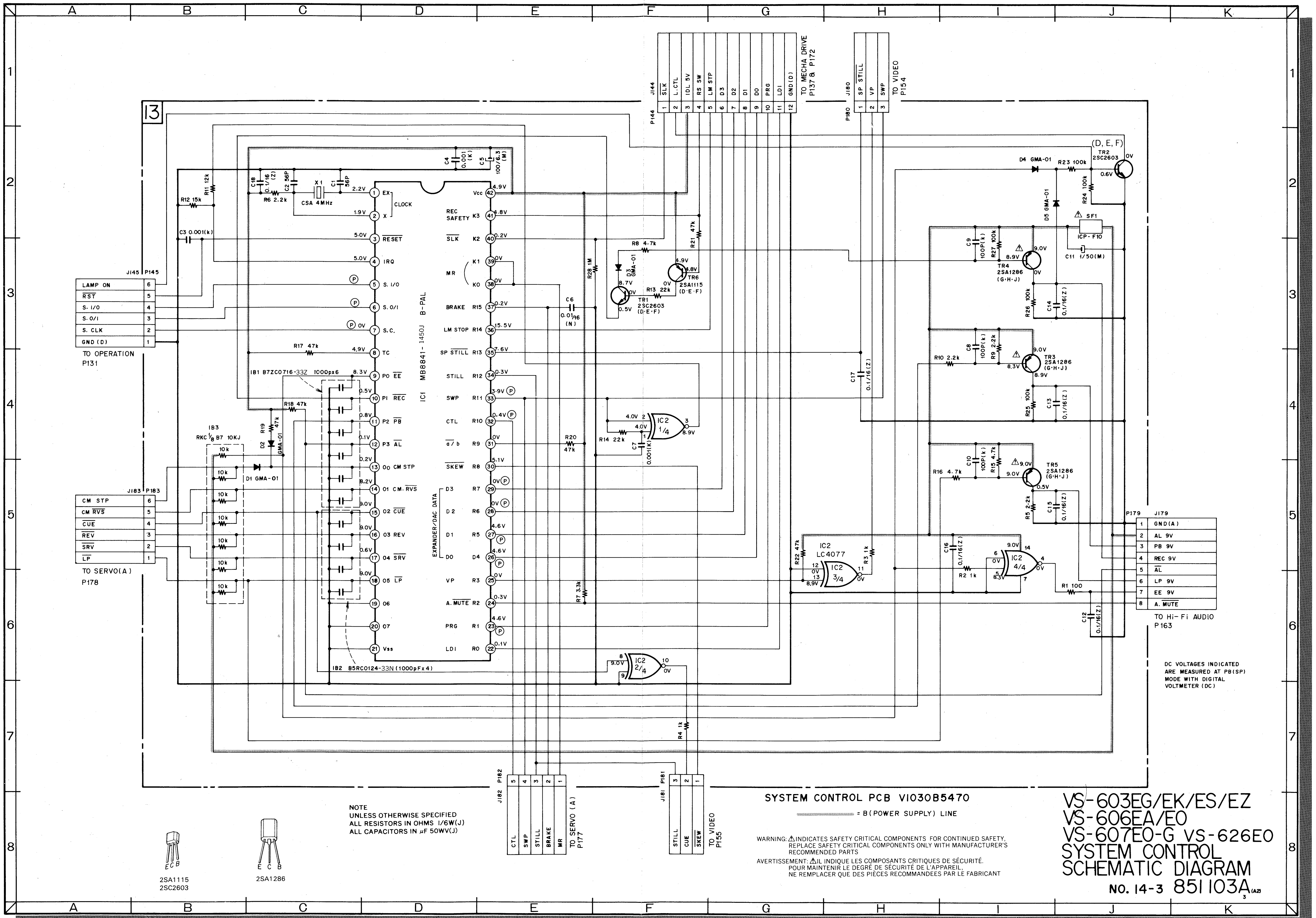

E C B
2SA1115
2SC2603
E C B
2SA1286
2SC2236
E C B
2SD863

■ • • = PNP TRANSISTOR
B

• • • = NPN TRANSISTOR
B

WARNING: ⚠ INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY.
REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

AVERTISSEMENT: ⚠ IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ.
POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL,
NE REMPLACER QUE DES PIÈCES RECOMMANDEES PAR LE FABRICANT


13
J144
P144
SLK
L.CTL
IDL 5V
RS SW
LM STP
D3
D2
D1
D0
PRG
LDI
GND(D)
TO MECHA DRIVE P137 & P172
J180
P180
SP STILL
VP
SWP
TO VIDEO P154
J145 P145
LAMP ON
RST
S. I/O
S. O/I
S. CLK
GND (D)
TO OPERATION P131
J183 P183
CM STP
CM RVS
CUE
REV
SRV
LP
TO SERVO(A) P178
IC1 MB8841-1450J B-PAL
CLOCK
EX
X
RESET
IRQ
S. I/O
S. O/I
S.C.
TC
P0 EE
P1 REC
P2 PB
P3 AL
O0 CM STP
O1 CM·RVS
O2 CUE
O3 REV
O4 SRV
O5 LP
O6
O7
Vss
Vcc
REC SAFETY K3
SLK K2
MR K1
K0
BRAKE R15
LM STOP R14
SP STILL R13
STILL R12
SWP R11
CTL R10
a/b R9
SKEW R8
EXPANDER/DAC DATA
D3 R7
D2 R6
D1 R5
D0 D4
VP R3
A. MUTE R2
PRG R1
LDI R0
X1 CSA 4MHz
IB1 B7ZC0716-33Z 1000px6
IB2 B5RC0124-33N (1000pFx4)
IB3 RKC 1/8 B7 10KJ
D1 GMA-01
D2 GMA-01
D3 GMA-01
D4 GMA-01
D5 GMA-01
TR1 2SC2603 (D·E·F)
TR2 2SC2603 (D, E, F)
TR3 2SA1286 (G·H·J)
TR4 2SA1286 (G·H·J)
TR5 2SA1286 (G·H·J)
TR6 2SA1115 (D·E·F)
SF1 ICP-F10
IC2 LC4077
IC2 1/4
IC2 2/4
IC2 3/4
IC2 4/4
P179 J179
GND(A)
AL 9V
PB 9V
REC 9V
AL
LP 9V
EE 9V
A. MUTE
TO Hi-Fi AUDIO P163
J182 P182
CTL
SWP
STILL
BRAKE
MR
TO SERVO (A) P177
J181 P181
STILL
CUE
SKEW
TO VIDEO P155
E C B
2SA1115
2SC2603
E C B
2SA1286
A B C D E F G H I J K
1 2 3 4 5 6 7 8

DC VOLTAGES INDICATED ARE MEASURED AT PB(SP) MODE WITH DIGITAL VOLTMETER (DC)

NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS 1/6W(J)
ALL CAPACITORS IN μF 50WV(J)

SYSTEM CONTROL PCB V1030B5470

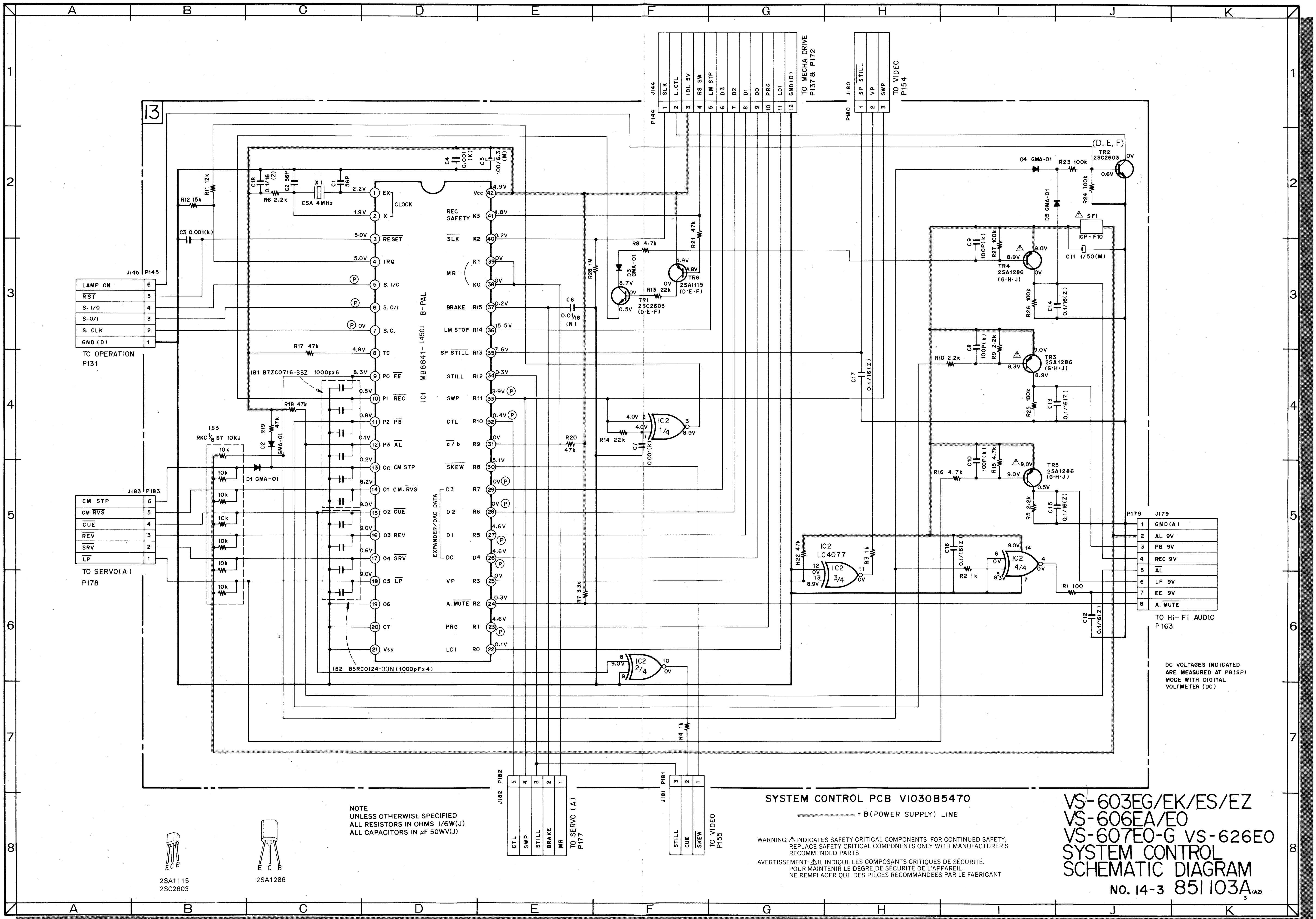
▬ = B(POWER SUPPLY) LINE

WARNING: ⚠INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY.
REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

AVERTISSEMENT: ⚠IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ.
POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL,
NE REMPLACER QUE DES PIÈCES RECOMMANDEES PAR LE FABRICANT

VS-603EG/EK/ES/EZ
VS-606EA/EO
VS-607EO-G VS-626EO
SYSTEM CONTROL
SCHEMATIC DIAGRAM

NO. 14-3 851103A(A2)


13
IC1 MB8841-1450J B-PAL
CLOCK
X1 CSA 4MHz
J145 P145
LAMP ON
RST
S. I/O
S. O/I
S. CLK
GND (D)
TO OPERATION P131
J183 P183
CM STP
CM RVS
CUE
REV
SRV
LP
TO SERVO (A) P178
IB1 B7ZC0716-33Z 1000px6
IB2 B5RC0124-33N (1000pFx4)
IB3 RKC 1/8 B7 10KJ
D1 GMA-01
D2 GMA-01
J144 P144
SLK
L.CTL
IDL 5V
RS SW
LM STP
D3
D2
D1
DO
PRG
LDI
GND (D)
TO MECHA DRIVE P137 & P172
J180 P180
SP STILL
VP
SWP
TO VIDEO P154
TR1 2SC2603 (D·E·F)
TR6 2SA1115 (D·E·F)
TR2 2SC2603 (D, E, F)
TR3 2SA1286 (G·H·J)
TR4 2SA1286 (G·H·J)
TR5 2SA1286 (G·H·J)
SF1 ICP-F10
IC2 LC4077
IC2 1/4
IC2 2/4
IC2 3/4
IC2 4/4
P179 J179
GND (A)
AL 9V
PB 9V
REC 9V
AL
LP 9V
EE 9V
A. MUTE
TO Hi-Fi AUDIO P163
J182 P182
CTL
SWP
STILL
BRAKE
MR
TO SERVO (A) P177
J181 P181
STILL
CUE
SKEW
TO VIDEO P155
2SA1115
2SC2603
2SA1286
E C B

NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS 1/6W(J)
ALL CAPACITORS IN μF 50WV(J)

DC VOLTAGES INDICATED ARE MEASURED AT PB(SP) MODE WITH DIGITAL VOLTMETER (DC)

SYSTEM CONTROL PCB VI030B5470

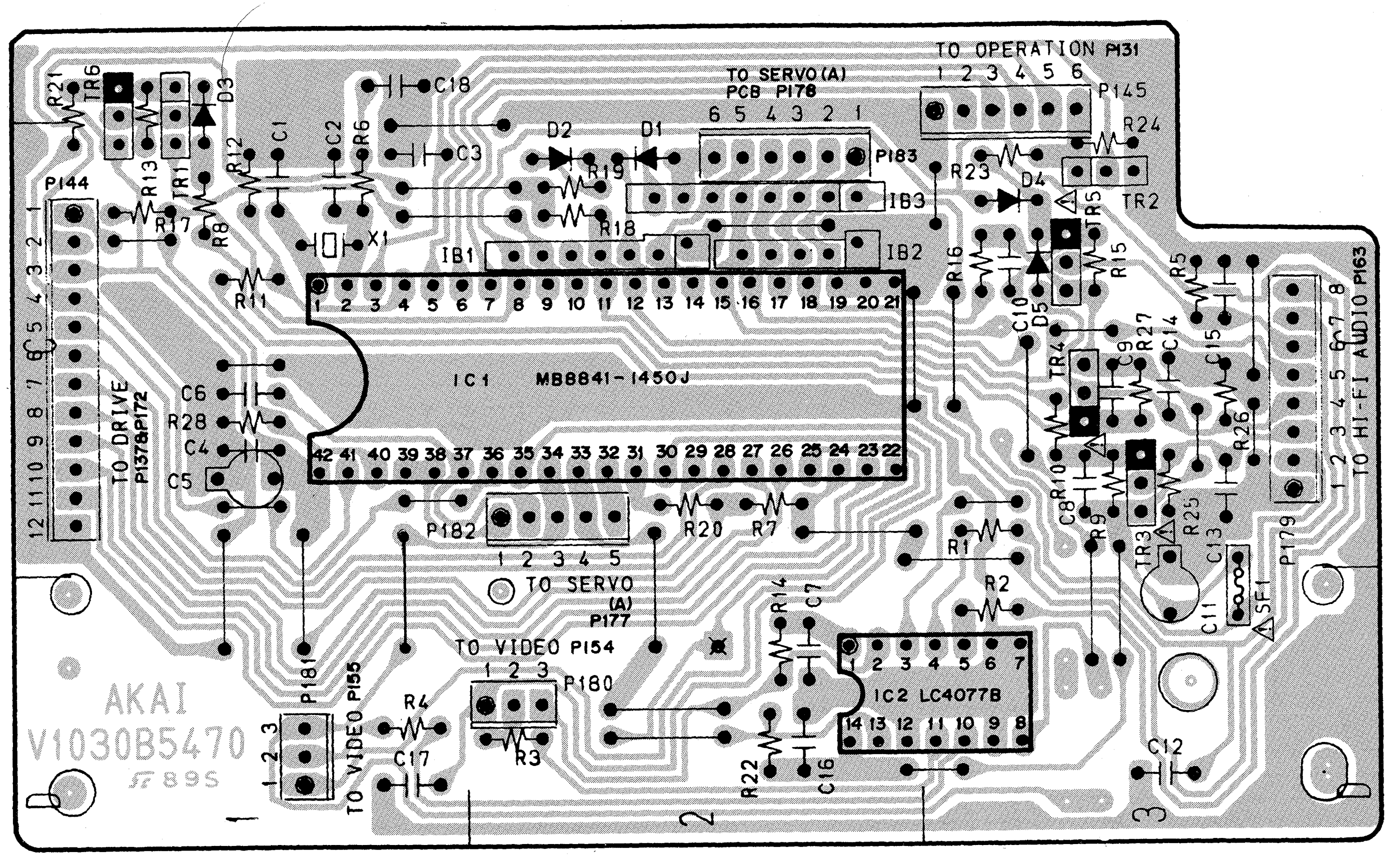
▬ = B (POWER SUPPLY) LINE

WARNING: ⚠ INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY. REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

AVERTISSEMENT: ⚠ IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDÉES PAR LE FABRICANT

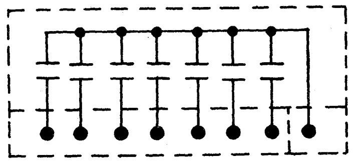
VS-603EG/EK/ES/EZ
VS-606EA/EO
VS-607EO-G VS-626EO
SYSTEM CONTROL SCHEMATIC DIAGRAM

NO. 14-3 851103A(A2)

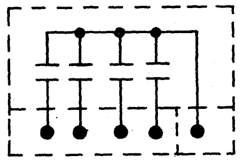

TO OPERATION P131
1 2 3 4 5 6
P145
R24
TR2
TO SERVO (A) PCB P178
6 5 4 3 2 1
P183
IB3
IB2
IB1
R21
TR6
D3
R13
TR1
R17
R8
R12
C1
C2
R6
C18
C3
D2
D1
R19
R18
X1
R23
D4
TR5
R15
R16
C10
D5
R5
R27
C14
C15
TR4
C9
R26
R10
C8
R9
TR3
R25
C13
C11
SF1
P163
1 2 3 4 5 6 7 8
TO HI-FI AUDIO P163
P179
P144
1 2 3 4 5 6 7 8 9 10 11 12
TO DRIVE P137&P172
R11
C6
R28
C4
C5
IC1 MB8841-1450J
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21
42 41 40 39 38 37 36 35 34 33 32 31 30 29 28 27 26 25 24 23 22
P182
1 2 3 4 5
TO SERVO (A) P177
R20
R7
R1
R2
R14
C7
IC2 LC4077B
1 2 3 4 5 6 7
14 13 12 11 10 9 8
TO VIDEO P154
1 2 3
P180
R4
R3
C17
P181
TO VIDEO P155
1 2 3
R22
C16
C12
AKAI
V1030B5470
2
3

SYSCON PCB V1030B5470

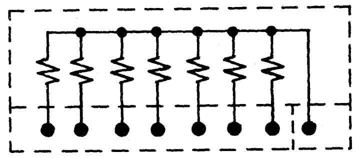
IB1 (B7ZC0716-33N)



IB2 (B5RC0124-33N)

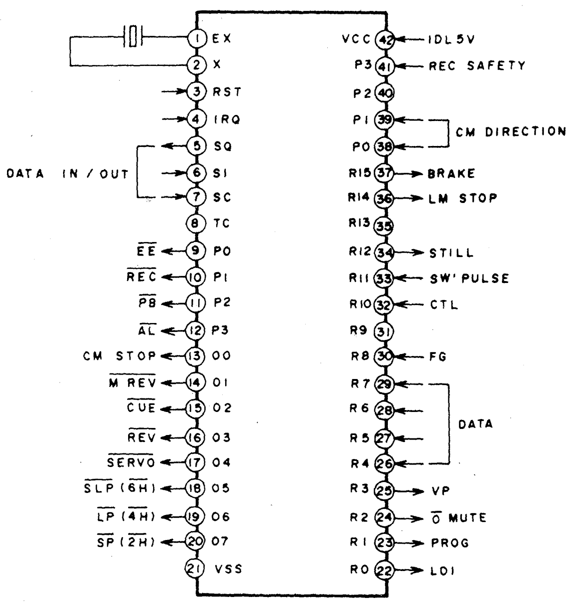


IB3 (RKC1/8B7-10KJ)



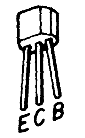
TR1, 2.. 2SC2603 (D,E,F)
TR 3 to 5.................................... 2SA1286 (G,H,J)
TR6.. 2SA1115 (D,E,F)

MB8841-1450J (SYSTEM CONTROL MI-COM)

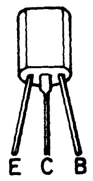

1 EX
2 X
3 RST
4 IRQ
5 SQ
6 SI
7 SC
DATA IN / OUT
8 TC
$\overline{EE}$ 9 P0
$\overline{REC}$ 10 P1
$\overline{PB}$ 11 P2
$\overline{AL}$ 12 P3
CM STOP 13 O0
$\overline{M\ REV}$ 14 O1
$\overline{CUE}$ 15 O2
$\overline{REV}$ 16 O3
$\overline{SERVO}$ 17 O4
$\overline{SLP}$ ($\overline{6H}$) 18 O5
$\overline{LP}$ ($\overline{4H}$) 19 O6
$\overline{SP}$ ($\overline{2H}$) 20 O7
21 VSS
VCC 42 IDL5V
P3 41 REC SAFETY
P2 40
P1 39
P0 38
CM DIRECTION
R15 37 BRAKE
R14 36 LM STOP
R13 35
R12 34 STILL
R11 33 SW' PULSE
R10 32 CTL
R9 31
R8 30 FG
R7 29
R6 28
R5 27
R4 26
DATA
R3 25 VP
R2 24 $\overline{O}$ MUTE
R1 23 PROG
R0 22 LD1

▣●● = PNP TRANSISTOR

●●● = NPN TRANSISTOR



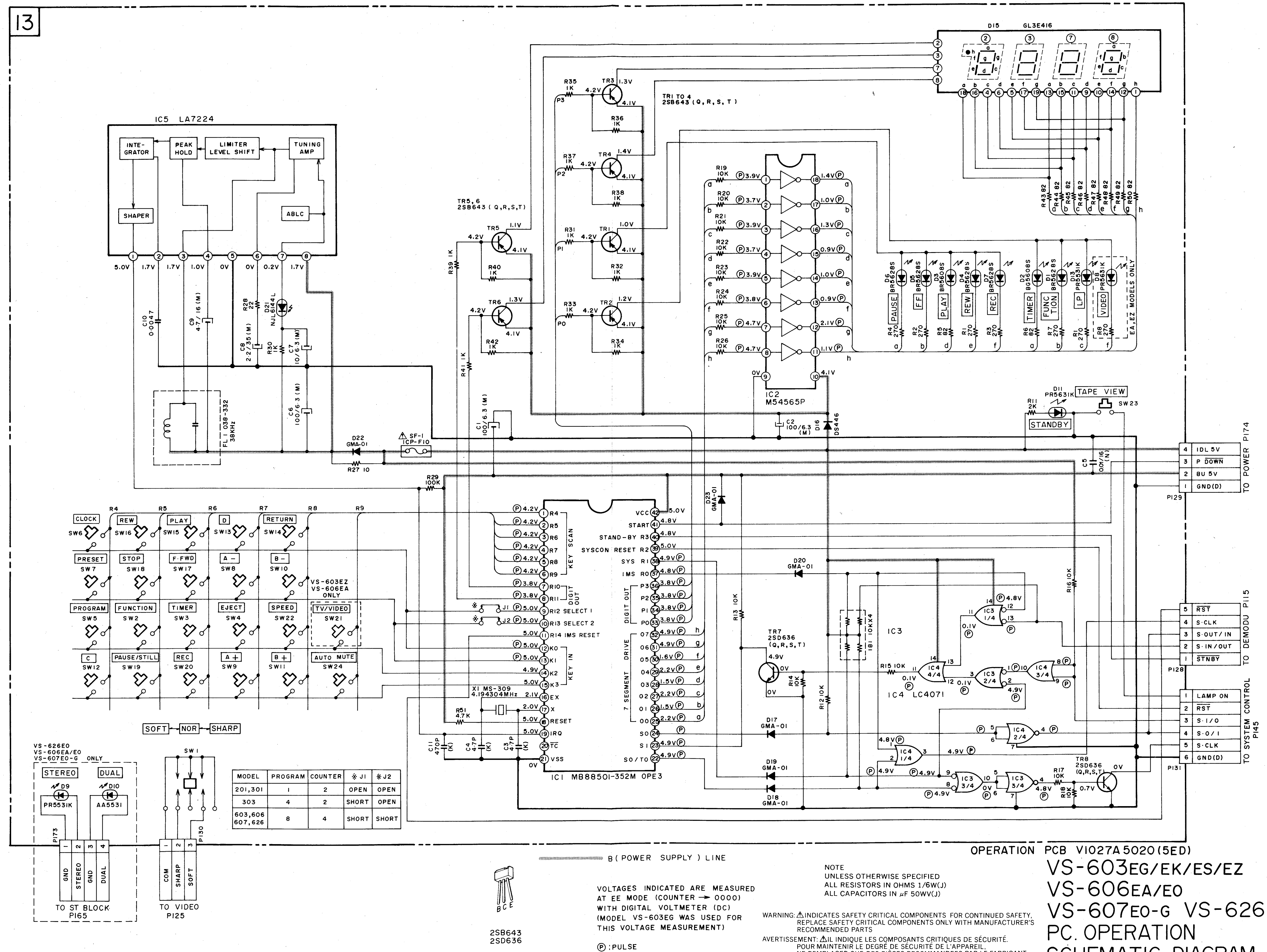
2SA1115
2SC2603



2SA1286

WARNING: ⚠ INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY,
REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S
RECOMMENDED PARTS

AVERTISSEMENT: ⚠ IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ.
POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL,
NE REMPLACER QUE DES PIÈCES RECOMMANDEES PAR LE FABRICANT


13
IC5 LA7224
INTEGRATOR
PEAK HOLD
LIMITER LEVEL SHIFT
TUNING AMP
SHAPER
ABLC
D15 GL3E416
TR1 TO 4 2SB643 (Q,R,S,T)
TR5,6 2SB643 (Q,R,S,T)
IC2 M54565P
IC1 MB88501-352M OPE3
X1 MS-309 4.194304MHz
IC3
IC4 LC4071
TR7 2SD636 (Q,R,S,T)
TR8 2SD636 (Q,R,S,T)
SF-1 ICP-F10
FL1 038-332 38KHz
D22 GMA-01
D16 DS446
D23 GMA-01
D20 GMA-01
D17 GMA-01
D19 GMA-01
D18 GMA-01
PAUSE
FF
PLAY
REW
REC
TIMER
FUNCTION
LP
VIDEO
EA,EZ MODELS ONLY
D11 PR5631K
TAPE VIEW
STANDBY
SW23
CLOCK
REW
PLAY
D
RETURN
PRESET
STOP
F·FWD
A−
B−
PROGRAM
FUNCTION
TIMER
EJECT
SPEED
TV/VIDEO
VS-603EZ VS-606EA ONLY
C
PAUSE/STILL
REC
A+
B+
AUTO MUTE
SOFT
NOR
SHARP
VS-626EO VS-606EA/EO VS-607EO-G ONLY
STEREO
DUAL
D9 PR5531K
D10 AA5531
P173
GND
STEREO
GND
DUAL
TO ST BLOCK P165
SW1
P130
COM
SHARP
SOFT
TO VIDEO P125
IDL 5V
P DOWN
BU 5V
GND(D)
TO POWER P174
P129
RST
S·CLK
S·OUT/IN
S·IN/OUT
STNBY
TO DEMODU P115
P128
LAMP ON
RST
S·I/O
S·O/I
S·CLK
GND(D)
TO SYSTEM CONTROL P145
P131
KEY SCAN
DIGIT OUT
KEY IN
7 SEGMENT DRIVE
2SB643
2SD636
B C E

MODEL	PROGRAM	COUNTER	※J1	※J2
201,301	1	2	OPEN	OPEN
303	4	2	SHORT	OPEN
603,606 607,626	8	4	SHORT	SHORT

B (POWER SUPPLY) LINE

VOLTAGES INDICATED ARE MEASURED
AT EE MODE (COUNTER → 0000)
WITH DIGITAL VOLTMETER (DC)
(MODEL VS-603EG WAS USED FOR
THIS VOLTAGE MEASUREMENT)

Ⓟ : PULSE

NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS 1/6W(J)
ALL CAPACITORS IN μF 50WV(J)

WARNING: ⚠ INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

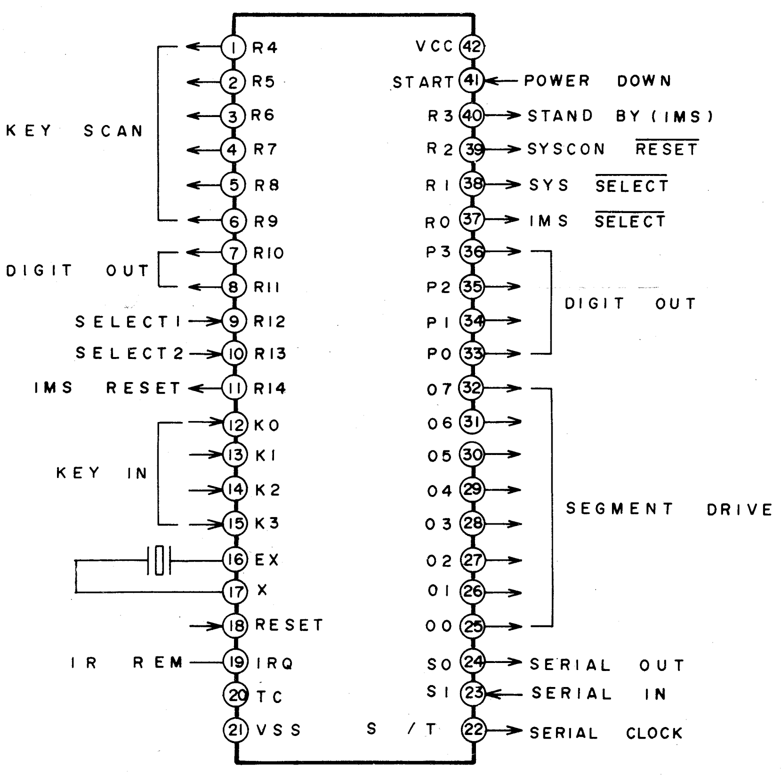
AVERTISSEMENT: ⚠ IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDEES PAR LE FABRICANT

OPERATION PCB V1027A5020(5ED)

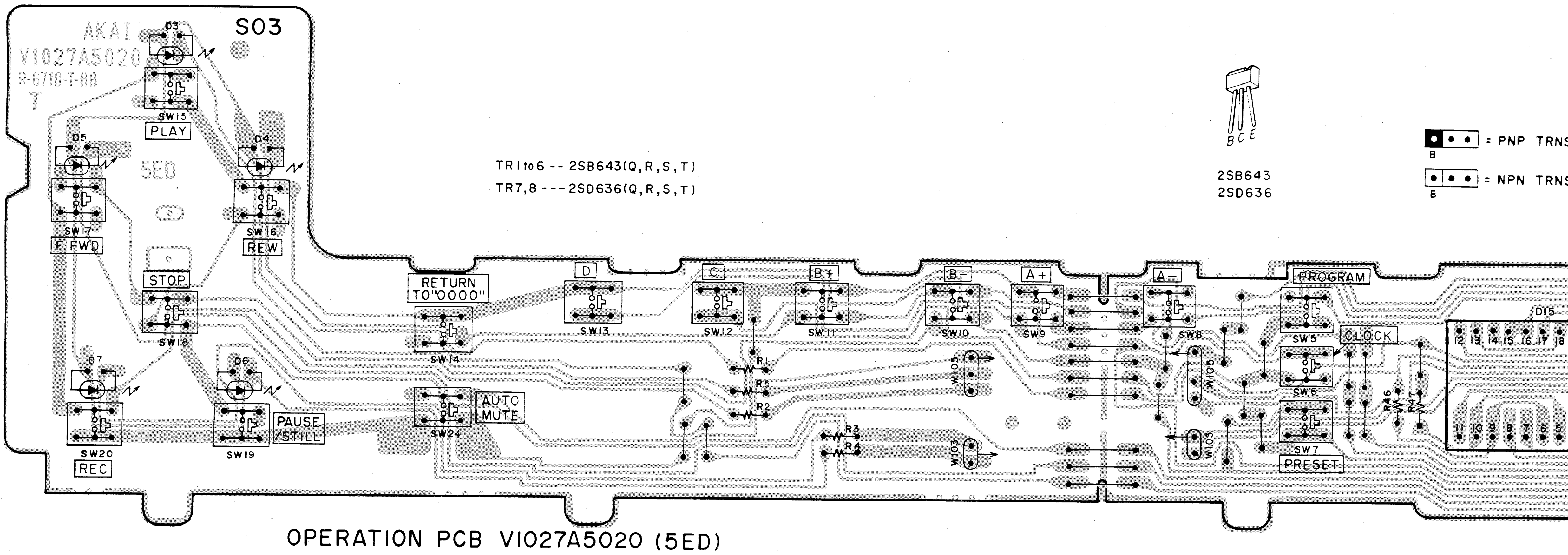
VS-603EG/EK/ES/EZ
VS-606EA/EO
VS-607EO-G VS-626EO
PC. OPERATION SCHEMATIC DIAGRAM

NO. 14-4 860518A (A2)

MB88501-352M (OPERATION MI-COM)


KEY SCAN
DIGIT OUT
SELECT1
SELECT2
IMS RESET
KEY IN
IR REM
1 R4
2 R5
3 R6
4 R7
5 R8
6 R9
7 R10
8 R11
9 R12
10 R13
11 R14
12 K0
13 K1
14 K2
15 K3
16 EX
17 X
18 RESET
19 IRQ
20 TC
21 VSS
S/T
42 VCC
41 START
40 R3
39 R2
38 R1
37 R0
36 P3
35 P2
34 P1
33 P0
32 O7
31 O6
30 O5
29 O4
28 O3
27 O2
26 O1
25 O0
24 SO
23 SI
22
POWER DOWN
STAND BY (IMS)
SYSCON RESET
SYS SELECT
IMS SELECT
DIGIT OUT
SEGMENT DRIVE
SERIAL OUT
SERIAL IN
SERIAL CLOCK

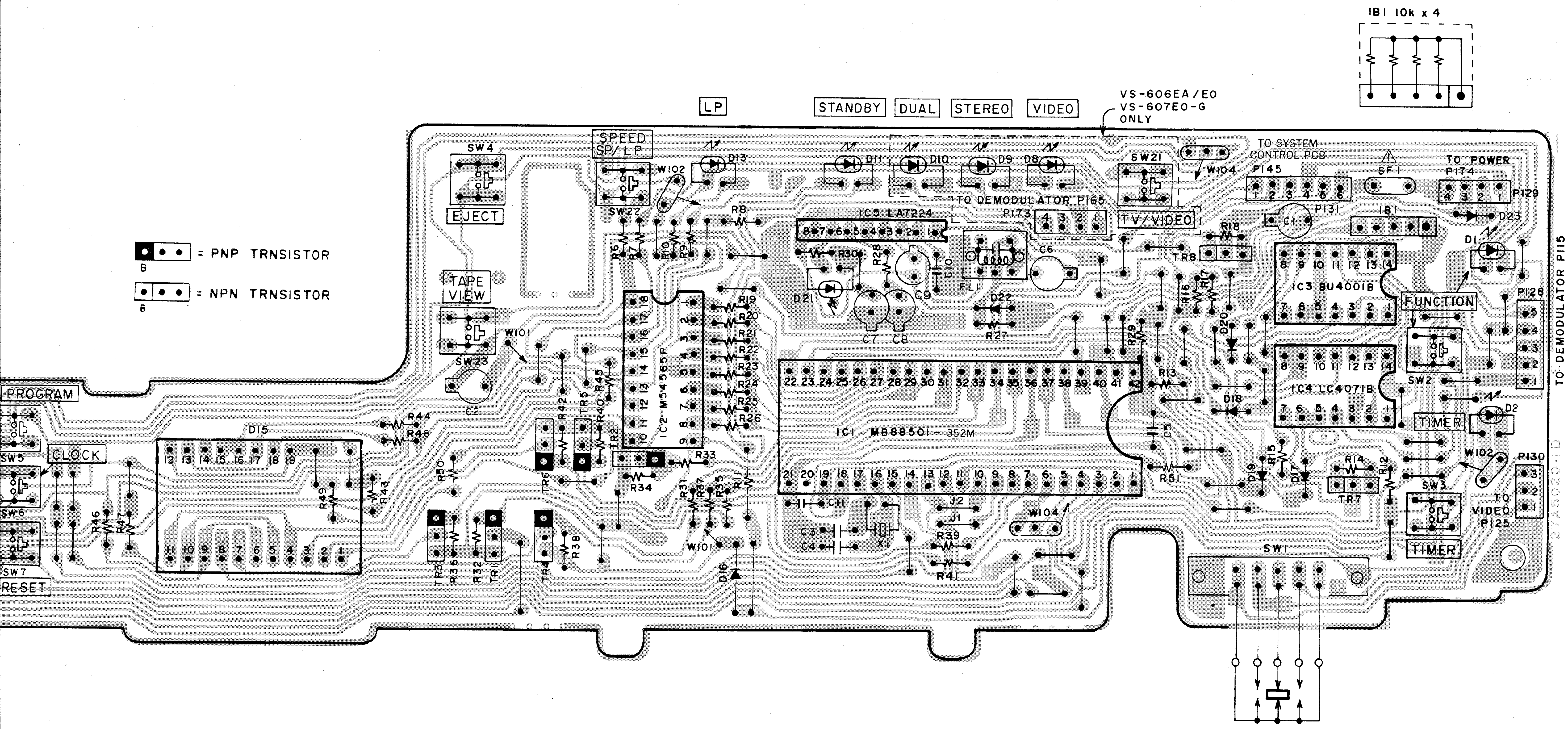
TR1to6 -- 2SB643(Q,R,S,T)
TR7,8 --- 2SD636(Q,R,S,T)


AKAI
V1027A5020
R-6710-T-HB
T
S03
5ED
D3
D4
D5
D6
D7
SW15
PLAY
SW16
REW
SW17
F.FWD
STOP
SW18
SW19
PAUSE /STILL
SW20
REC
RETURN TO"0000"
SW14
AUTO MUTE
SW24
D
SW13
C
SW12
B+
SW11
B−
SW10
A+
SW9
A−
SW8
PROGRAM
SW5
CLOCK
SW6
SW7
PRESET
R1
R2
R3
R4
R5
W105
W103
R46
R47
D15
12 13 14 15 16 17 18
11 10 9 8 7 6 5
B C E
2SB643
2SD636
B
= PNP TRNS
B
= NPN TRNS

OPERATION PCB V1027A5020 (5ED)

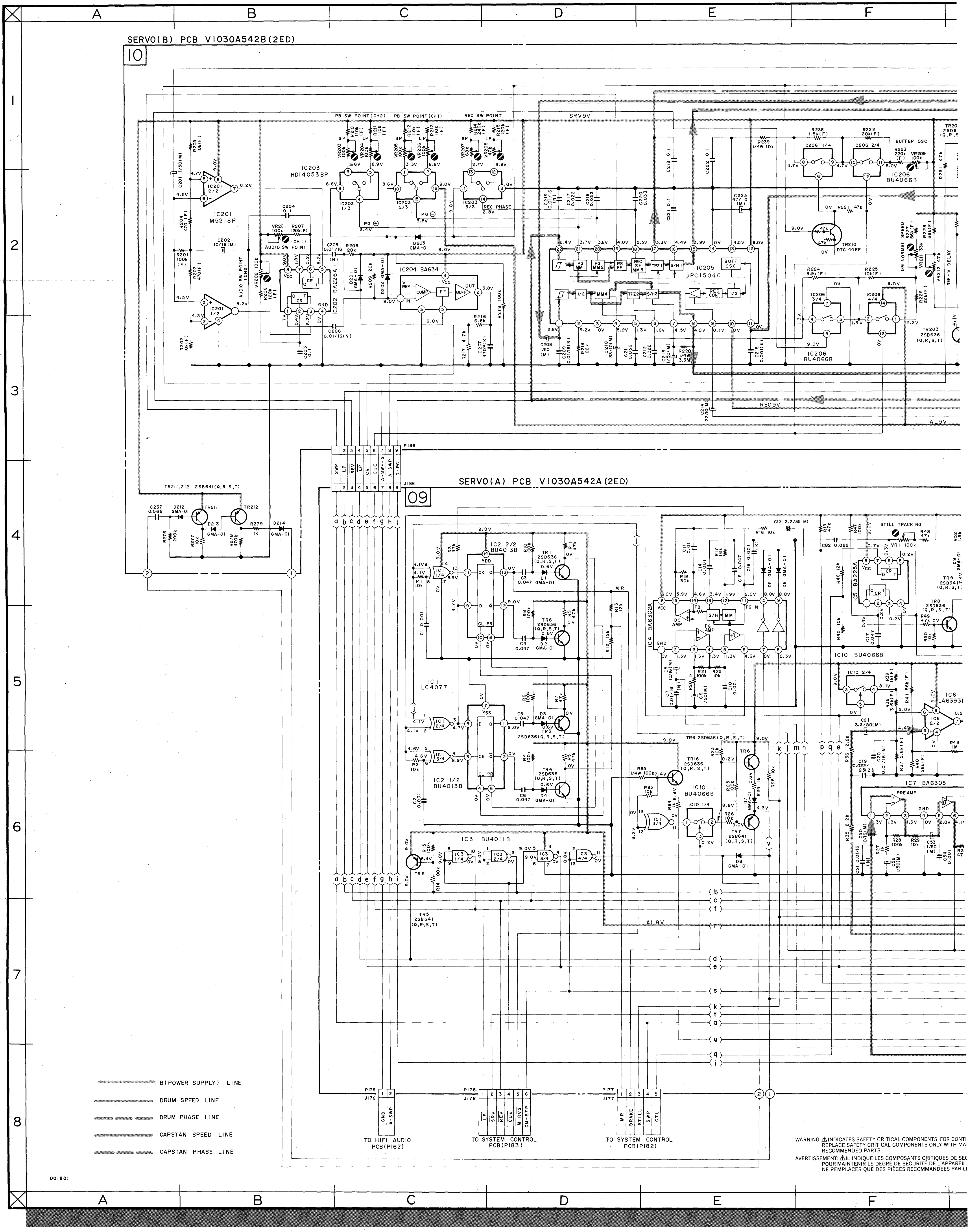
WARNING: ⚠ INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

AVERTISSEMENT: ⚠ IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDEES PAR LE FABRICANT

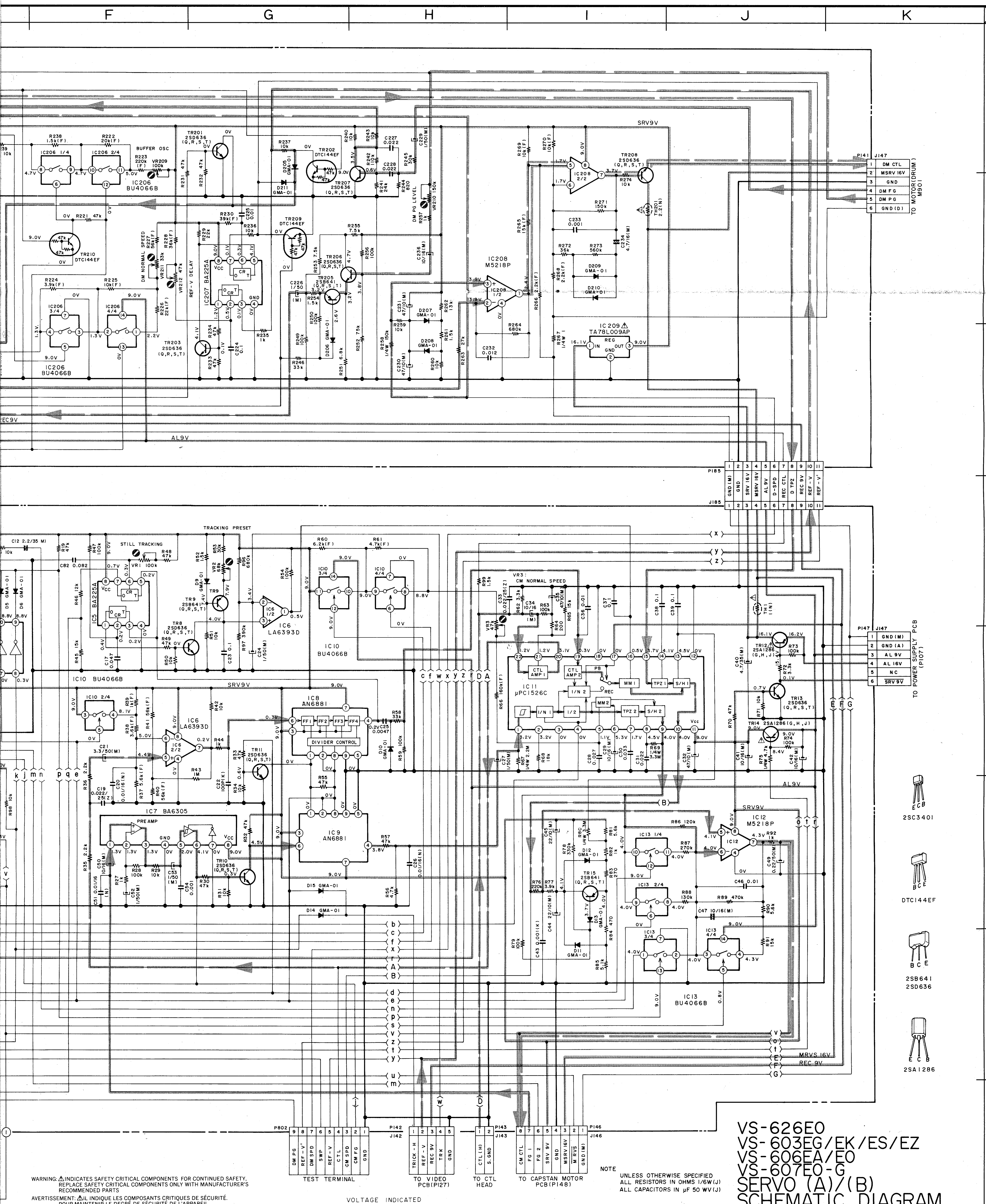

IB1 10k x 4
= PNP TRNSISTOR
= NPN TRNSISTOR
B
LP
STANDBY
DUAL
STEREO
VIDEO
VS-606EA/EO
VS-607EO-G
ONLY
TO SYSTEM
CONTROL PCB
TO POWER
P174
P145
SF1
P129
D23
SW4
EJECT
SPEED
SP/LP
SW22
W102
D13
D11
D10
D9
D8
SW21
W104
TO DEMODULATOR P165
P173
TV/VIDEO
R18
TR8
C1
P131
IB1
D1
R8
R6
R7
R10
R9
IC5 LA7224
R30
R28
C10
C6
FL1
D21
C7
C8
C9
D22
R27
R16
R17
D20
IC3 BU4001B
FUNCTION
P128
TO DEMODULATOR P115
TAPE
VIEW
SW23
W101
C2
PROGRAM
R19
R20
R21
R22
R23
R24
R25
R26
IC2 M54565P
R45
R40
TR5
R42
TR2
R44
R48
R29
R13
IC1 MB88501-352M
C5
IC4 LC4071B
SW2
D18
TIMER
D2
D15
CLOCK
SW5
SW6
SW7
RESET
R46
R47
R49
R43
R50
TR6
R33
R34
R31
R37
R35
R11
W101
D16
TR3
R36
R32
TR1
TR4
R38
C11
C3
C4
X1
J2
J1
R39
R41
W104
R51
D19
R15
D17
R14
R12
TR7
W102
P130
SW3
TO
VIDEO
P125
TIMER
SW1
27A5020-D
SHARP
NOR
SOFT

AL COMPONENTS FOR CONTINUED SAFETY,
COMPONENTS ONLY WITH MANUFACTURER'S

MPOSANTS CRITIQUES DE SÉCURITÉ.
DE SÉCURITÉ DE L'APPAREIL,
ECES RECOMMANDEES PAR LE FABRICANT


A
B
C
D
E
F
1
2
3
4
5
6
7
8
SERVO(B) PCB V1030A542B(2ED)
10
SERVO(A) PCB V1030A542A(2ED)
09
IC201 M5218P
IC202 BA226A
IC203 HD14053BP
IC204 BA634
IC205 μPC1504C
IC206 BU4066B
TR210 DTC144EF
TR203 2SD636 (Q,R,S,T)
TR211,212 2SB641(Q,R,S,T)
PB SW POINT(CH2)
PB SW POINT(CH1)
REC SW POINT
AUDIO SW POINT
AUDIO SW POINT (CH2)
SRV9V
REC9V
AL9V
BUFFER OSC
DM NORMAL SPEED
REF-V DELAY
PG ⊕
PG ⊖
REC PHASE
P186
J186
SWP
LP
REV
LP
CR I
CUE
A-SWP-G
A-SWP
D-PG
IC1 LC4077
IC2 BU4013B
IC3 BU4011B
IC4 BA6302A
IC5 BA225A
IC6 LA6393
IC7 BA6305
IC10 BU4066B
TR1 2SD636 (Q,R,S,T)
TR3 2SD636 (Q,R,S,T)
TR4 2SD636 (Q,R,S,T)
TR5 2SB641 (Q,R,S,T)
TR6 2SD636 (Q,R,S,T)
TR7 2SB641 (Q,R,S,T)
TR8 2SD636 (Q,R,S,T)
TR9 2SB641 (Q,R,S,T)
TR16 2SD636 (Q,R,S,T)
STILL TRACKING
PREAMP
MR
P176
J176
GND
A-SWP
TO HIFI AUDIO PCB(P162)
P178
J178
LP
SRV
REV
CUE
M-RVS
CM-STP
TO SYSTEM CONTROL PCB(P183)
P177
J177
MR
BRAKE
STILL
SWP
CTL
TO SYSTEM CONTROL PCB(P182)
B(POWER SUPPLY) LINE
DRUM SPEED LINE
DRUM PHASE LINE
CAPSTAN SPEED LINE
CAPSTAN PHASE LINE
001801

WARNING: ⚠ INDICATES SAFETY CRITICAL COMPONENTS FOR CONTI
REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MA
RECOMMENDED PARTS
AVERTISSEMENT: ⚠ IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉC
POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL
NE REMPLACER QUE DES PIÈCES RECOMMANDÉES PAR L


IC206 BU4066B
IC207 BA225A
IC208 M5218P
IC209 TA78L009AP
TR201 2SD636
TR202 DTC144EF
TR207 2SD636
TR208 2SD636
TR209 DTC144EF
TR210 DTC144EF
TR203 2SD636
TR205 2SB641
TR206 2SD636
BUFFER OSC
DM NORMAL SPEED
REF-V DELAY
DM PG LEVEL
SRV9V
AL9V
REC9V
TO MOTOR(DRUM) M901
P141 J147
DM CTL
MSRV 16V
GND
DM FG
DM PG
GND (D)
P185 J185
GND (M)
GND
SRV 16V
MSRV 16V
AL 9V
D-SPD
REC CTL
D TPZ
REC 9V
REF-V
REF-V'
TRACKING PRESET
STILL TRACKING
IC5 BA225A
IC6 LA6393D
IC7 BA6305
PREAMP
IC8 AN6881
DIVIDER CONTROL
IC9 AN6881
IC10 BU4066B
IC11 μPC1526C
VR3: CM NORMAL SPEED
IC12 M5218P
IC13 BU4066B
TR8 2SD636
TR9 2SB641
TR10 2SD636
TR11 2SD636
TR12 2SA1286
TR13 2SD636
TR14 2SA1286
TR15 2SB641
P147 J147
GND (M)
GND (A)
AL 9V
AL 16V
NC
SRV 9V
TO POWER SUPPLY PCB (P107)
MRVS 16V
REC 9V
2SC3401
DTC144EF
2SB641
2SD636
2SA1286
P802
DM PG
REF-V'
DM SPD
SWP
REF-V
CTL
CM SPD
CM FG
GND
TEST TERMINAL
P142 J142
TRICK-H
REF-V
REC 9V
TRK
GND
TO VIDEO PCB(P127)
P143 J143
CTL(H)
S.GND
TO CTL HEAD
P146 J146
CM CTL
FG 1
FG 2
SRV 9V
GND
MSRV 16V
M RVS
GND(M)
TO CAPSTAN MOTOR PCB(P148)
F
G
H
I
J
K
1
2
3
4
5
6
7
8

WARNING: ⚠INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

AVERTISSEMENT: ⚠IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDEES PAR LE FABRICANT

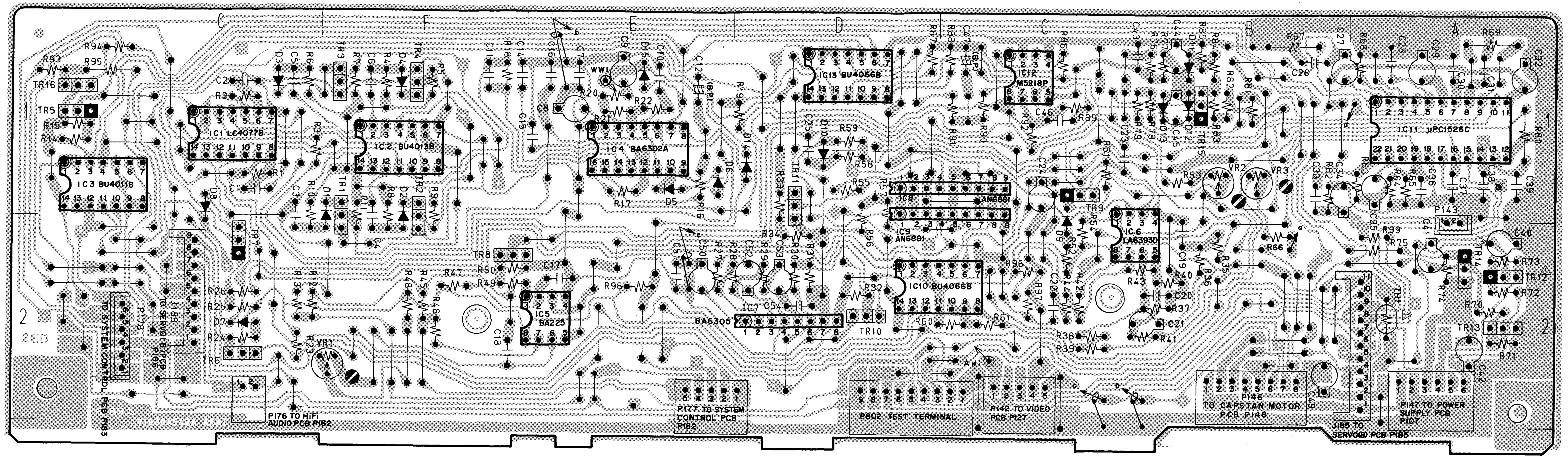
VOLTAGE INDICATED
AT PB MODE WITH
DIGITAL TYPE TESTER

NOTE

UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS 1/6W(J)
ALL CAPACITORS IN μF 50 WV(J)

VS-626E0
VS-603EG/EK/ES/EZ
VS-606EA/E0
VS-607E0-G
SERVO (A)/(B)
SCHEMATIC DIAGRAM

NO. 14-5 860519A


IC1 LC4077B
IC2 BU4013B
IC3 BU4011B
IC4 BA6302A
IC5 BA225
IC6 LA6393D
IC7 BA6305
IC8 AN6881
IC9 AN6881
IC10 BU4066B
IC11 µPC1526C
IC12 M5218P
IC13 BU4066B
J186 TO SERVO (B) PCB P186
P178 TO SYSTEM CONTROL PCB P183
P176 TO HIFI AUDIO PCB P162
P177 TO SYSTEM CONTROL PCB P182
P802 TEST TERMINAL
P142 TO VIDEO PCB P127
P146 TO CAPSTAN MOTOR PCB P148
J185 TO SERVO(B) PCB P185
P147 TO POWER SUPPLY PCB P107
VR1
VR2
VR3
2ED
V1030A542A AKAI

SERVO (A) PCB V1030A542A (2ED)

SERVO (A) PCB

LOCATION OF COMPONENTS

〈IC〉		〈TR〉	
IC1	G1	TR1	F1
IC2	F1	TR2	F1
IC3	G1	TR3	F1
IC4	E1	TR4	F1
IC5	E2	TR5	G1
IC6	C2	TR6	G2
IC7	D2	TR7	G2
IC8	C1	TR8	F2
IC9	C1	TR9	C1
IC10	D2	TR10	D2
IC11	A1	TR11	D1
IC12	C1	TR12	A2
IC13	D1	TR13	A2
		TR14	A2
		TR15	B1
		TR16	G1

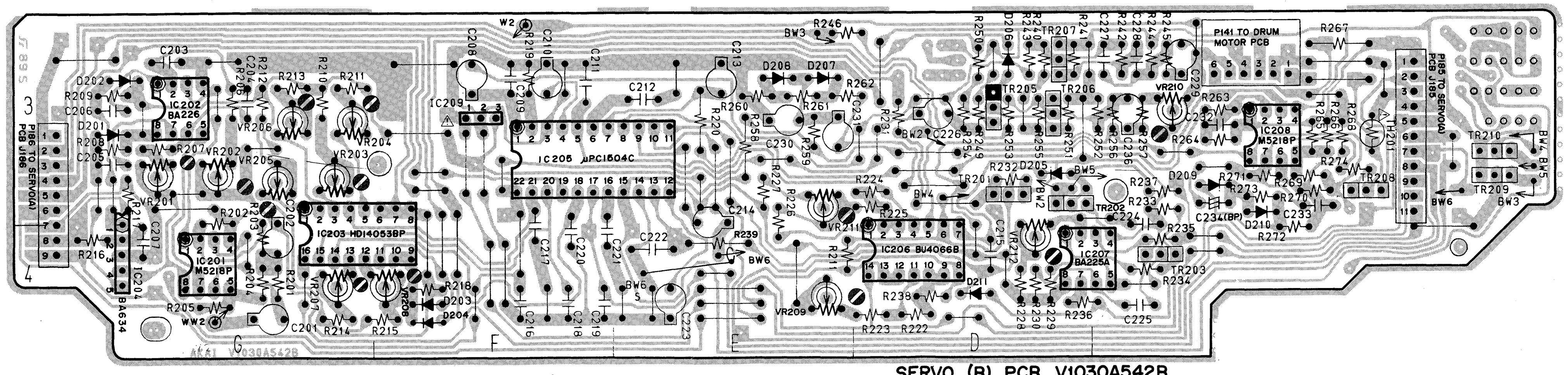
〈TERMINAL〉

P142	C2
P143	A1
P146	B2
P147	A2
P176	G2
P177	E2
P178	G2
J185	A2
J186	G2
P802	D2
1,5,6,9	D1
2	B1
3,8	C1
4	E2

〈ADJ POINTS〉

VR1 (F2)	STILL TRACKING
VR2 (B1)	TRACKING PRESET
VR3 (B1)	CM SPEED

TR1 to 4,6,8,10,11,13,16	2SD636 (Q,R,S,T)
TR5,7,9,15	2SB641 (Q,R,S,T)
TR12,14	2SA1286 (G,H,J)


IC201 M5218P
IC202 BA226
IC203 HD14053BP
IC204 BA634
IC205 µPC1504C
IC206 BU4066B
IC207 BA225A
IC208 M5218P
IC209
P186 TO SERVO(A) PCB J186
P141 TO DRUM MOTOR PCB
P185 TO SERVO(A) PCB J185
V1030A542B AKAI

SERVO (B) PCB V1030A542B

TR201,203,204,206, to 208	2SD636 (Q,R,S,T)
TR202,209,210	DTC144EF
TR205	2SB641 (Q,R,S,T)

■●● = PNP TRANSISTOR

●●● = NPN TRANSISTOR

WARNING: ⚠INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

AVERTISSEMENT: ⚠IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDEES PAR LE FABRICANT

SERVO (B) PCB

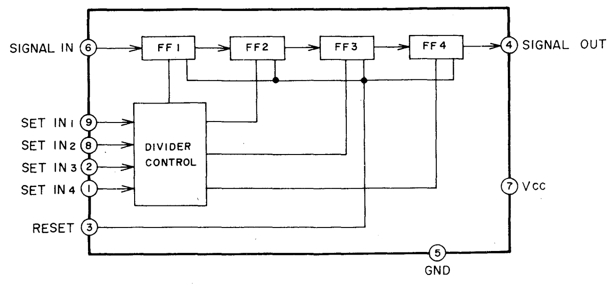
LOCATION OF COMPONENTS

〈IC〉		〈TR〉		〈TERMINAL〉	
IC201	G4	TR201	D3	P141	C3
IC202	G3	TR202	D3	P185	B3
IC203	G4	TR203	C4	P186	G3
IC204	G4	TR204	D3		
IC205	F3	TR205	D3		
IC206	D4	TR206	D3		
IC207	D4	TR207	D3		
IC208	C3	TR208	B3		
IC209	F3	TR209	B3		
		TR210	B3		

〈ADJ POINTS〉

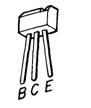
VR201 (G3):	AUDIO SWITCHING POINT (CH1)
VR202 (G3):	AUDIO SWITCHING POINT (CH2)
VR203 (G3):	CH2 PB SWITCHING POINT (GP)
VR204 (G3):	CH2 PB SWITCHING POINT (LP)
VR205 (G3):	CH1 PB SWITCHING POINT (SP)
VR206 (G3):	CH1 PB SWITCHING POINT (LP)
VR207 (G4):	REC SWITCHING POINT (SP)
VR208 (G4):	REC SWITCHING POINT (LP)
VR209 (E4):	BUFFER OSC
VR210 (C3):	DM PG LEVEL
VR211 (E3):	DM NORMAL SPEED
VR212 (D4):	REF-V DELAY

AN6881 (1~16 FREQUENCY DEVIDER)

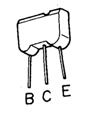

SIGNAL IN ⑥
FF1
FF2
FF3
FF4
④ SIGNAL OUT
SET IN1 ⑨
SET IN2 ⑧
SET IN3 ②
SET IN4 ①
DIVIDER CONTROL
⑦ Vcc
RESET ③
⑤ GND

TRUTH TABLE

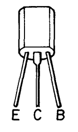
DEVIDED RATIO / PIN NUMBER	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
9	L	H	L	H	L	H	L	H	L	H	L	H	L	H	L	H
8	L	L	H	H	L	L	H	H	L	L	H	H	L	L	H	H
2	L	L	L	L	H	H	H	H	L	L	L	L	H	H	H	H
1	L	L	L	L	L	L	L	L	H	H	H	H	H	H	H	H



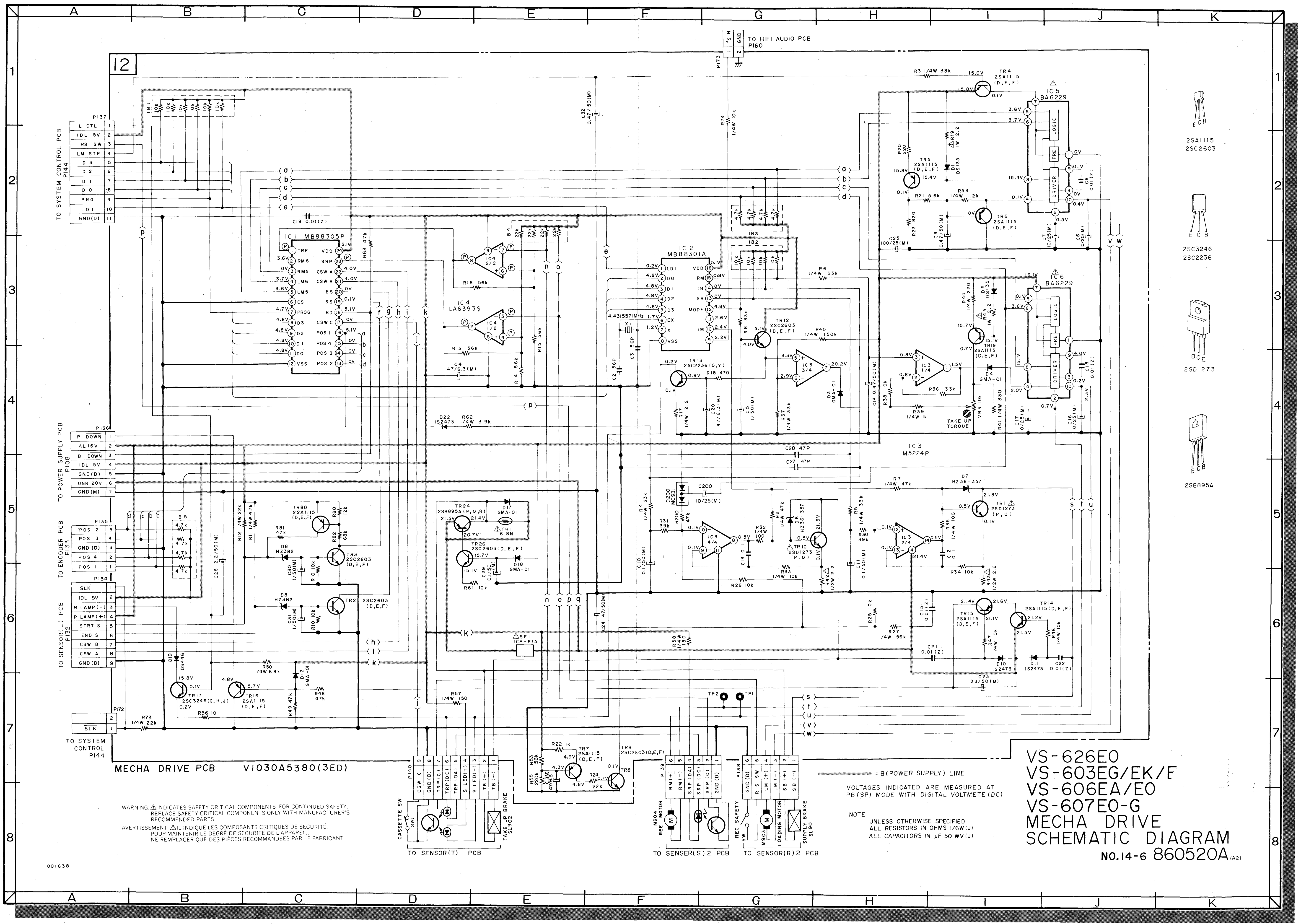
DTC144EF



2SD636
2SB641



2SA1286


12
TO HIFI AUDIO PCB P160
P173
fs IN
GND
TO SYSTEM CONTROL PCB P144
P137
L CTL
IDL 5V
RS SW
LM STP
D 3
D 2
D 1
D 0
PRG
LDI
GND(D)
IC1 MB88305P
IC2 MB88301A
IC3 M5224P
IC4 LA6393S
IC5 BA6229
IC6 BA6229
LOGIC
PRE
DRIVER
TO POWER SUPPLY PCB P108
P136
P DOWN
AL16V
B DOWN
IDL 5V
GND(D)
UNR 20V
GND(M)
TO ENCODER PCB P133
P135
POS 2
POS 3
GND (D)
POS 4
POS 1
TO SENSOR(L) PCB P132
P134
SLK
IDL 5V
R LAMP(−)
R LAMP(+)
STRT S
END S
CSW B
CSW A
GND (D)
P172
TO SYSTEM CONTROL P144
TR4 2SA1115 (D,E,F)
TR5 2SA1115 (D,E,F)
TR6 2SA1115 (D,E,F)
TR12 2SC2603 (D,E,F)
TR13 2SC2236 (O,Y)
TR19 2SA1115 (D,E,F)
TR80 2SA1115 (D,E,F)
TR3 2SC2603 (D,E,F)
TR2 2SC2603 (D,E,F)
TR24 2SB895A (P,Q,R)
TR26 2SC2603 (D,E,F)
TR17 2SC3246 (G,H,J)
TR16 2SA1115 (D,E,F)
TR7 2SA1115 (D,E,F)
TR8 2SC2603 (D,E,F)
TR10 2SD1273 (P,Q)
TR11 2SD1273 (P,Q)
TR14 2SA1115 (D,E,F)
TR15 2SA1115 (D,E,F)
X1 4.433619MHz
SF1 ICP-F15
TH1 6.8N
TAKE UP TORQUE
TP2
TP1
TO SENSOR(T) PCB
P140
CSW C
GND (D)
TRP (C)
TRP (DC)
TRP (DA)
S LED(+)
S LED(−)
TB (+)
TB (−)
CASSETTE SW SW1
TAKE UP BRAKE SL902
TO SENSER(S)2 PCB
P139
RM (+)
RM (−)
SRP (DA)
SRP (C)
GND (D)
M904 REEL MOTOR
TO SENSOR(R)2 PCB
P138
GND (D)
R S SW
LM (+)
LM (−)
SB (+)
SB (−)
REC SAFETY SW1
M903 LOADING MOTOR
SUPPLY BRAKE SL901
2SA1115
2SC2603
2SC3246
2SC2236
2SD1273
2SB895A
E C B

MECHA DRIVE PCB V1030A5380(3ED)

WARNING: ⚠INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY. REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

AVERTISSEMENT: ⚠IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL. NE REMPLACER QUE DES PIÈCES RECOMMANDEES PAR LE FABRICANT

▬ = B(POWER SUPPLY) LINE

VOLTAGES INDICATED ARE MEASURED AT PB(SP) MODE WITH DIGITAL VOLTMETE(DC)

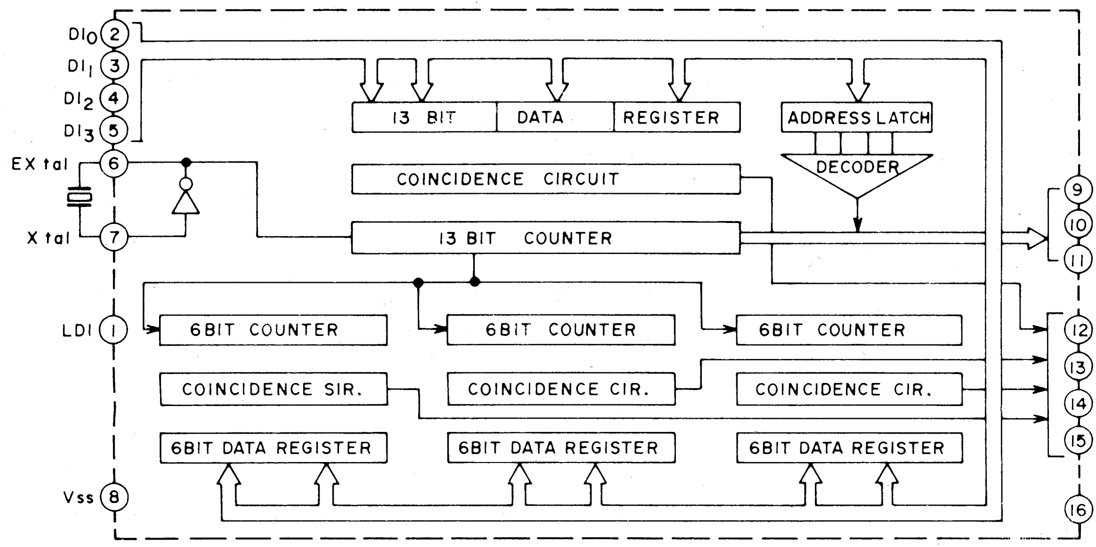
NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS 1/6W(J)
ALL CAPACITORS IN μF 50 WV(J)

VS-626EO
VS-603EG/EK/F
VS-606EA/EO
VS-607EO-G
MECHA DRIVE
SCHEMATIC DIAGRAM

NO.14-6 860520A(A2)

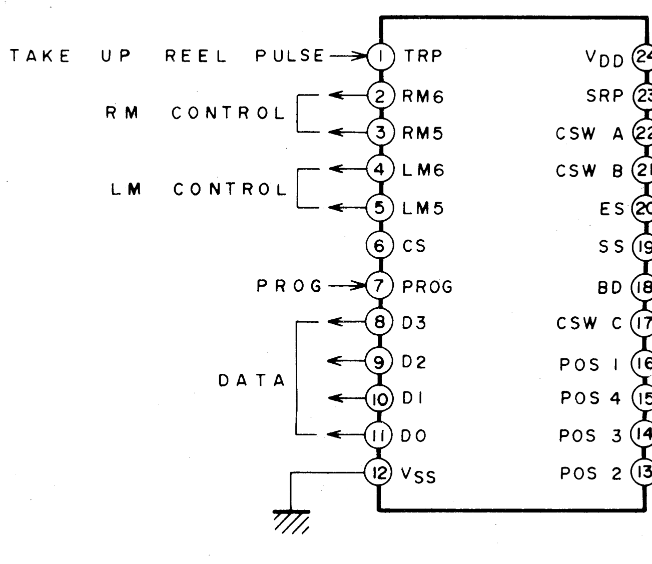
001638

M88301A-P (D/A CONVERTER)



DI0 2
DI1 3
DI2 4
DI3 5
EX tal 6
X tal 7
LDI 1
Vss 8
13 BIT DATA REGISTER
ADDRESS LATCH
DECODER
COINCIDENCE CIRCUIT
13 BIT COUNTER
6BIT COUNTER
6BIT COUNTER
6BIT COUNTER
COINCIDENCE SIR.
COINCIDENCE CIR.
COINCIDENCE CIR.
6BIT DATA REGISTER
6BIT DATA REGISTER
6BIT DATA REGISTER
9 TMO1
10 TMO2
11 TMO3
12 DAC1
13 DAC2
14 DAC3
15 DAC4
16 Vcc

MB88305-P (MECHA DRIVE MI-COM)

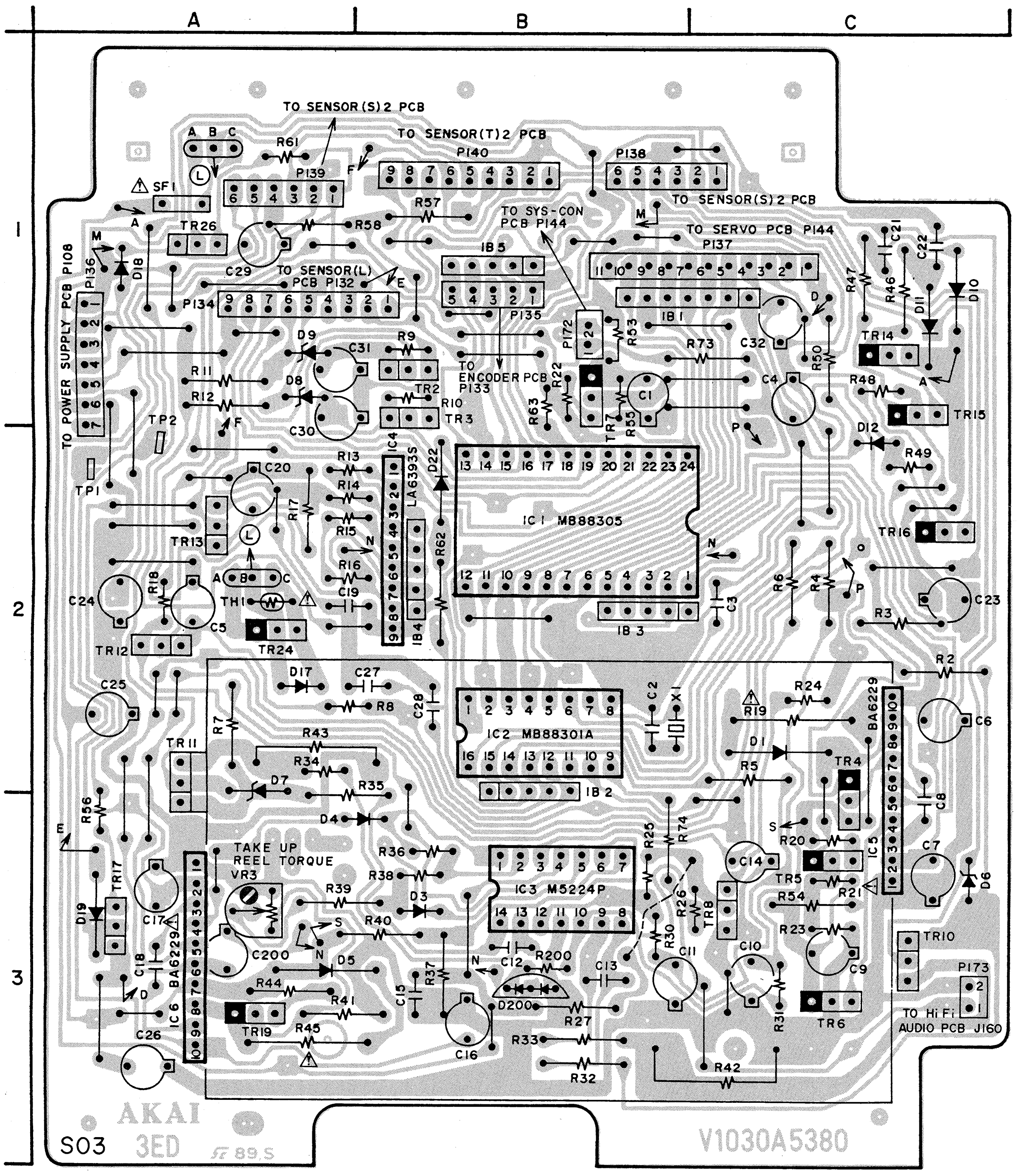


TAKE UP REEL PULSE
RM CONTROL
LM CONTROL
PROG
DATA
1 TRP
2 RM6
3 RM5
4 LM6
5 LM5
6 CS
7 PROG
8 D3
9 D2
10 D1
11 D0
12 VSS
VDD 24
SRP 23
CSW A 22
CSW B 21
ES 20
SS 19
BD 18
CSW C 17
POS 1 16
POS 4 15
POS 3 14
POS 2 13

BA6229 (BI-DIRECTIONAL MOTO

CONTROL MODE

MODE	INPUT		OUTPUT	
	5pin	6pin	2pin	10
STOP	L	L	OPEN	OP
NORMAL	H	L	H	L
REVERSE	L	H	L	H
BRAKE	H	H	L	L



A
B
C
1
2
3
TO SENSOR(S)2 PCB
TO SENSOR(T)2 PCB
P140
P138
P139
TO SENSOR(S)2 PCB
TO SYS-CON PCB P144
TO SERVO PCB P144
P137
TO SENSOR(L) PCB P132
P134
TO POWER SUPPLY PCB P108
P136
P135
TO ENCODER PCB P133
P172
IC1 MB88305
IC2 MB88301A
IC3 M5224P
IC4 LA6393S
IC5 BA6229
IC6 BA6229
IB1
IB2
IB3
IB4
IB5
TAKE UP REEL TORQUE VR3
TO Hi Fi AUDIO PCB J160
P173
TR2
TR3
TR4
TR5
TR6
TR7
TR8
TR10
TR11
TR12
TR13
TR14
TR15
TR16
TR17
TR19
TR24
TR26
TP1
TP2
SF1
TH1
X1
AKAI
S03
3ED
89.5
V1030A5380

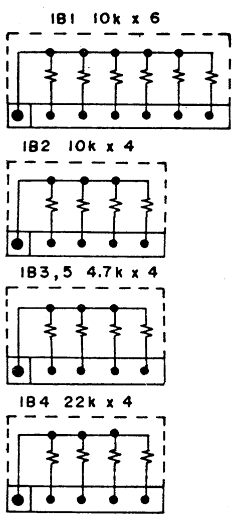
MECHA DRIVE PCB V1030A5380 (3ED)

WARNING: ⚠ INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

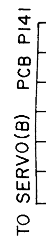
AVERTISSEMENT: ⚠ IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDEES PAR LE FABRICANT

LOCATION OF COMPONENT

TRs	
TR2,3	B1
TR4,5,6	C3
TR7	B1
TR8,10	C3
TR11,12,13	A2
TR14,15	C1
TR16	C2
TR17,19	A3
TR24	A2
TR26	A1
ICs	
IC1,2	B2
IC3	B3
IC4	B2
IC5	C3
IC6	A3

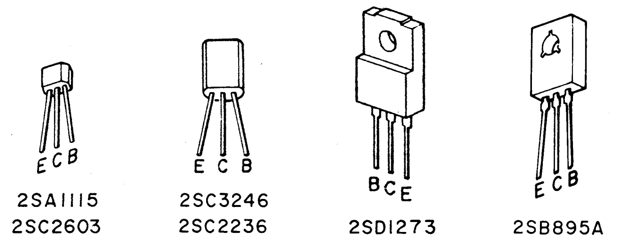


IB1 10k x 6
IB2 10k x 4
IB3,5 4.7k x 4
IB4 22k x 4



TO SERVO(B) PCB P141

TR4 to 7,14,15,16,19	2SA1115(D,E,F)
TR2,3,8,12,26	2SC2603(D,E,F)
TR10,11	2SD1273(P,Q)
TR13	2SC2236(O,Y)
TR17	2SC3246(G,H,J)
TR24	2SB895A(P,Q,R)

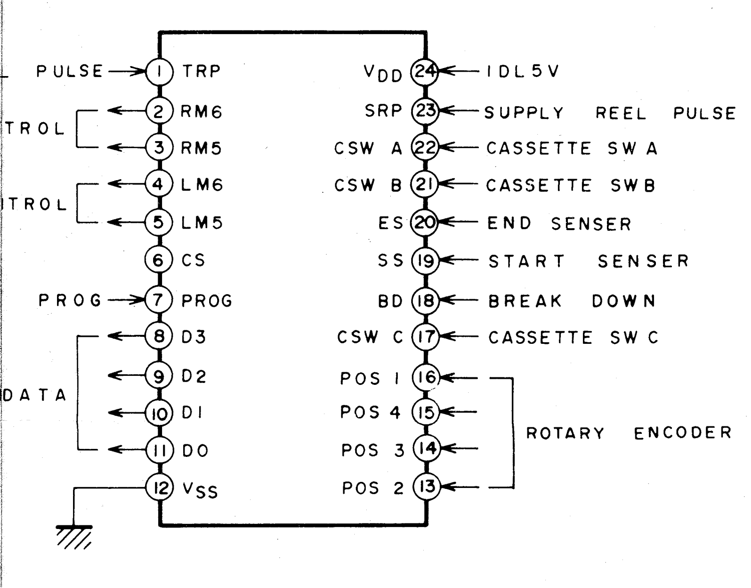


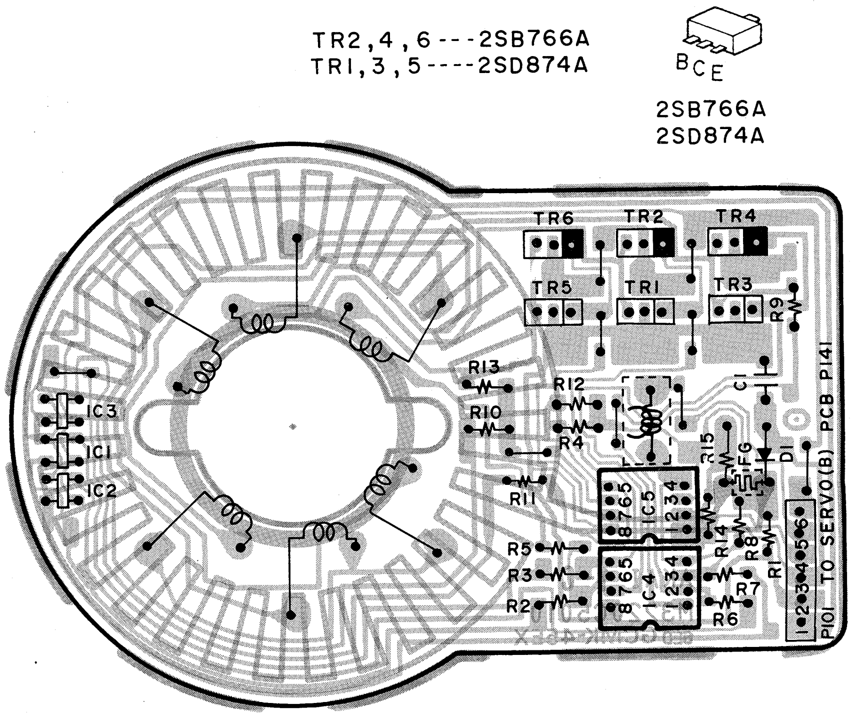
E C B
2SA1115
2SC2603
E C B
2SC3246
2SC2236
B C E
2SD1273
E C B
2SB895A

B
●●● = NPN TRANSISTOR

B
■●● = PNP TRANSISTOR

VE MI-COM)


PULSE
TROL
TROL
PROG
DATA
① TRP
② RM6
③ RM5
④ LM6
⑤ LM5
⑥ CS
⑦ PROG
⑧ D3
⑨ D2
⑩ D1
⑪ D0
⑫ VSS
VDD ㉔ IDL5V
SRP ㉓ SUPPLY REEL PULSE
CSW A ㉒ CASSETTE SW A
CSW B ㉑ CASSETTE SWB
ES ⑳ END SENSER
SS ⑲ START SENSER
BD ⑱ BREAK DOWN
CSW C ⑰ CASSETTE SW C
POS 1 ⑯
POS 4 ⑮
POS 3 ⑭
POS 2 ⑬
ROTARY ENCODER

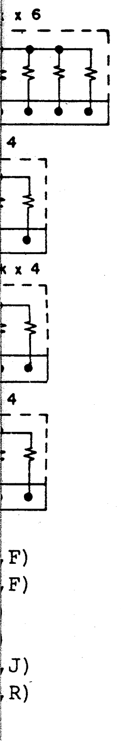

TR2,4,6---2SB766A
TR1,3,5----2SD874A
BCE
2SB766A
2SD874A
TR6
TR2
TR4
TR5
TR1
TR3
R9
R13
R10
R12
R4
R11
C1
R15
FG
D1
PCB P141
IC3
IC1
IC2
IC5
IC4
R5
R3
R2
R14
R8
R1
R7
R6
P101
TO SERVO(B)

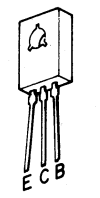
MOTOR PCB M3220C5010(6ED)

6229 (BI-DIRECTIONAL MOTOR DRIVER)

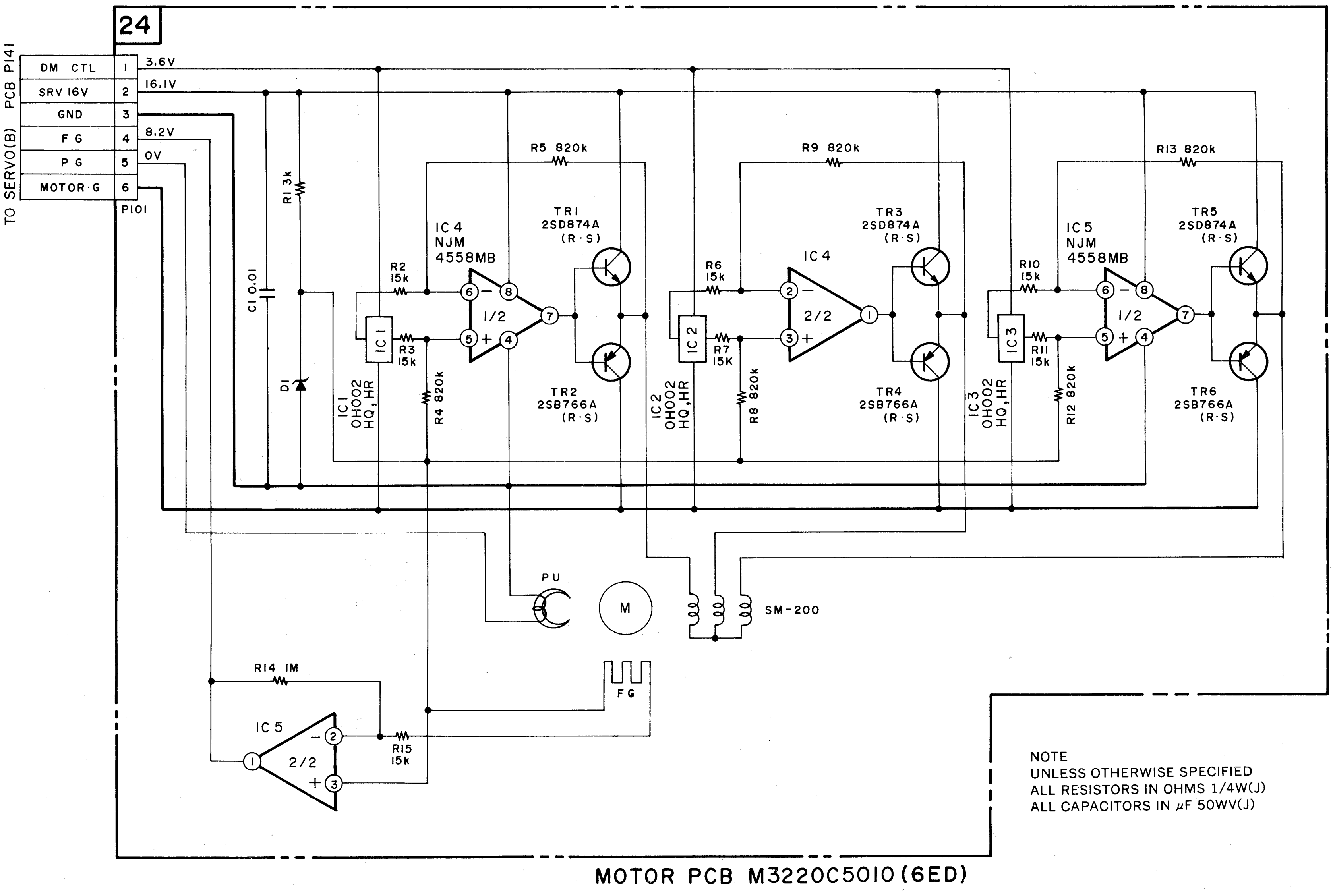
CONTROL MODE

MODE	INPUT		OUTPUT	
	5pin	6pin	2pin	10pin
STOP	L	L	OPEN	OPEN
NORMAL	H	L	H	L
REVERSE	L	H	L	H
BRAKE	H	H	L	L


x 6
4
x 4
4
F)
F)
J)
R)

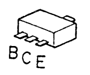


2SB895A


24
TO SERVO(B) PCB P141
DM CTL
SRV 16V
GND
FG
PG
MOTOR·G
P101
3.6V
16.1V
8.2V
0V
R1 3k
C1 0.01
D1
IC1 OHO02 HQ,HR
IC2 OHO02 HQ,HR
IC3 OHO02 HQ,HR
R2 15k
R3 15k
R4 820k
R5 820k
IC4 NJM 4558MB
1/2
TR1 2SD874A (R·S)
TR2 2SB766A (R·S)
R6 15k
R7 15k
R8 820k
R9 820k
IC4
2/2
TR3 2SD874A (R·S)
TR4 2SB766A (R·S)
R10 15k
R11 15k
R12 820k
R13 820k
IC5 NJM 4558MB
1/2
TR5 2SD874A (R·S)
TR6 2SB766A (R·S)
PU
M
SM-200
FG
R14 1M
IC5
2/2
R15 15k

NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS 1/4W(J)
ALL CAPACITORS IN μF 50WV(J)

MOTOR PCB M3220C5010(6ED)



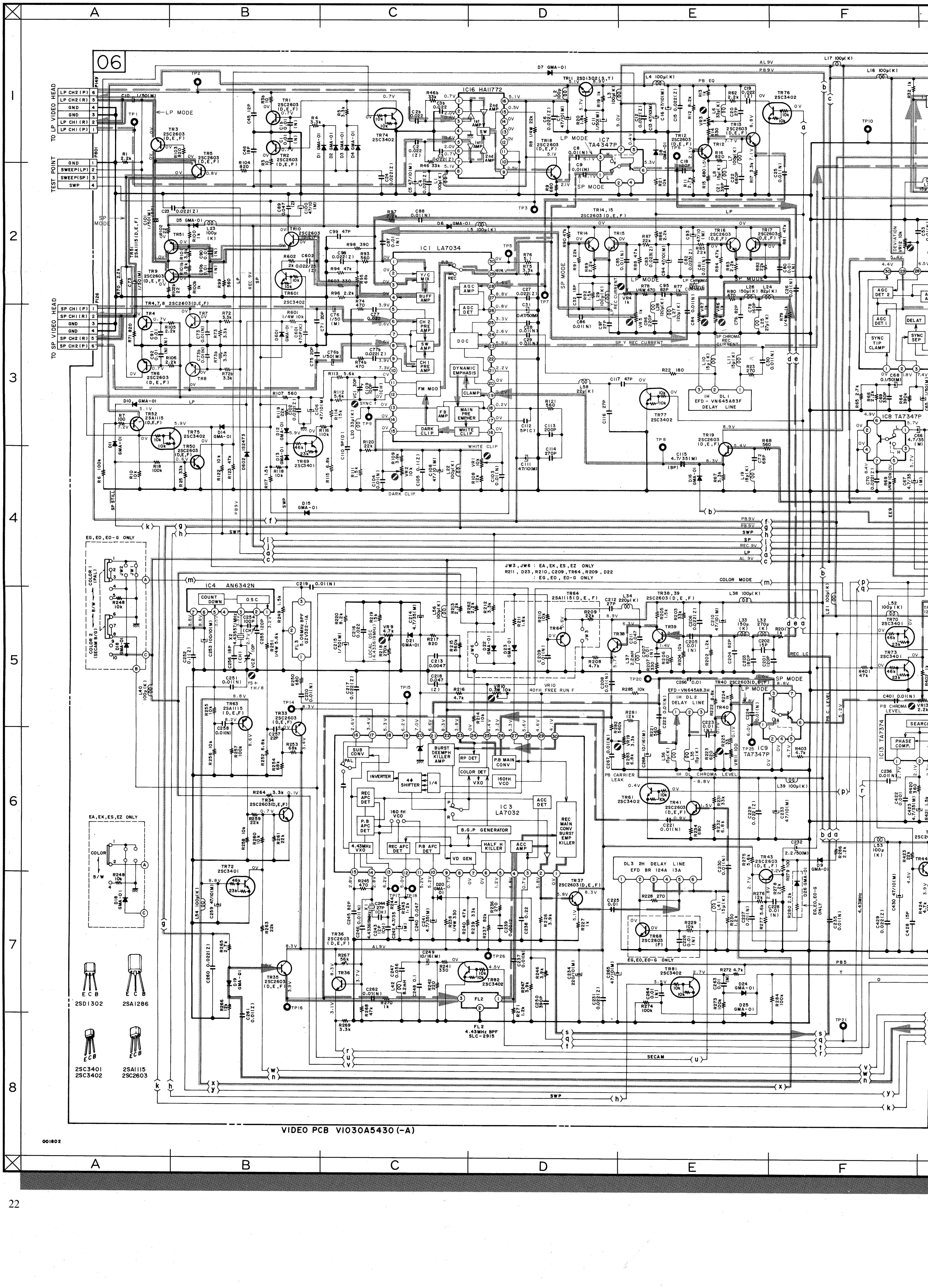
TR2,4,6---2SB766A
TR1,3,5----2SD874A

2SB766A
2SD874A

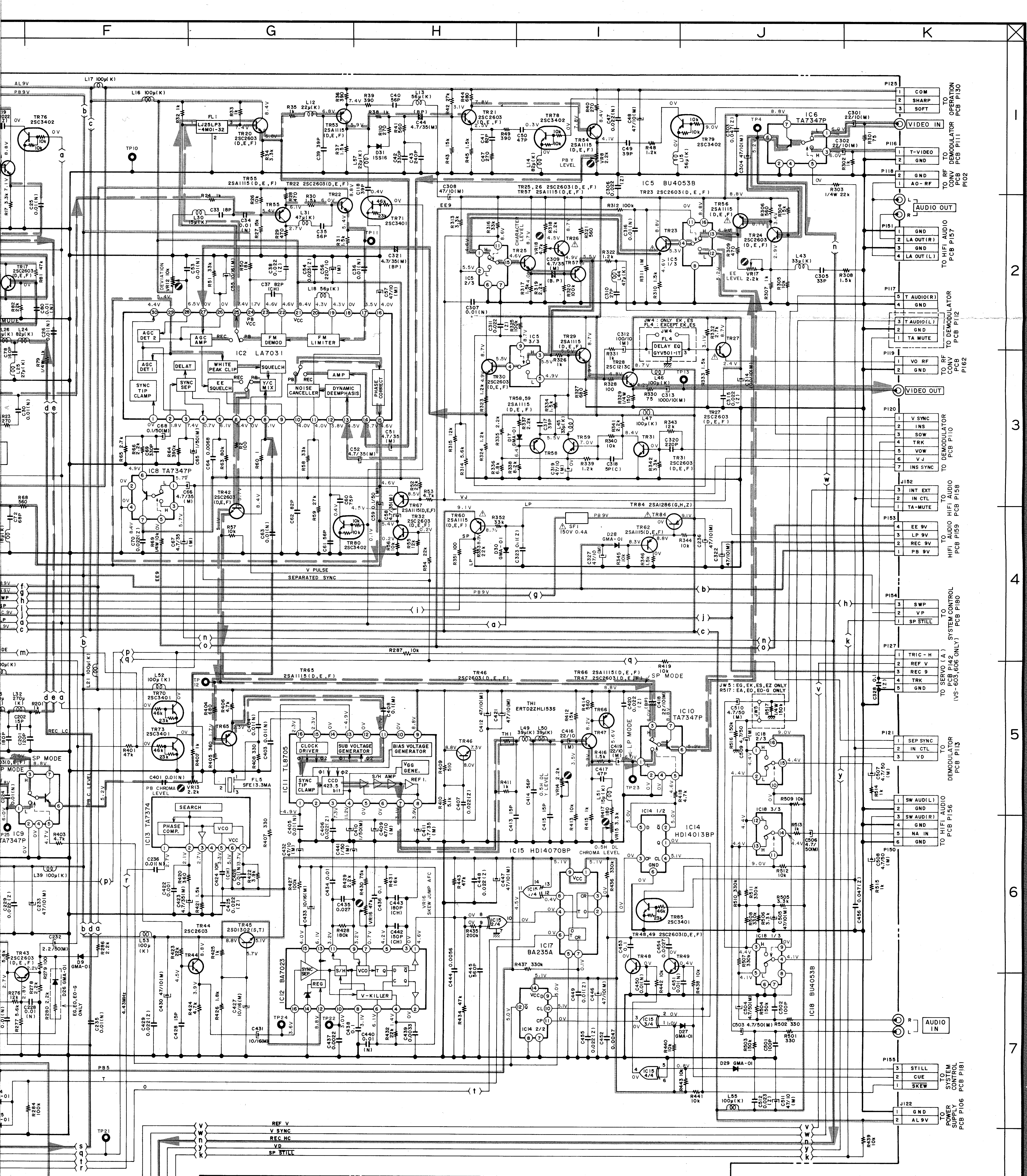
VOLTAGE INDICATED ARE MEASURED AT PB MODE WITH DIGITAL TYPE TESTER

MOTOR PCB
SCHEMATIC DIAGRAM

NO.14-7 850419D(A3) 2


A
B
C
D
E
F
06
TO LP VIDEO HEAD
LP CH2 (P)
LP CH2 (R)
GND
GND
LP CH1 (R)
LP CH1 (P)
P149
TEST POINT
GND
SWEEP(LP)
SWEEP(SP)
SWP
P801
TO SP VIDEO HEAD
SP CH1 (P)
SP CH1 (R)
GND
GND
SP CH2 (R)
SP CH2 (P)
P126
LP MODE
SP MODE
IC16 HA11772
IC7 TA4347P
IC1 LA7034
IC4 AN6342N
IC3 LA7032
IC8 TA7347P
IC9 TA7347P
IC13 TA7374
DL1 1H EFD-VN645A83F DELAY LINE
1H DL2 EFD-VN645A83H DELAY LINE
DL3 2H DELAY LINE EFD BR 124A 13A
FL2 4.43MHz BPF SLC-2915
FL3 5.0MHz BPF GZV322-1A
Y/C MIX
BUFF AMP
CH 2 PRE AMP
SW AMP
CH 1 PRE AMP
FM MOD
DOC
AGC AMP
AGC DET
DYNAMIC EMPHASIS
CLAMP
MAIN PRE EMPHER
F.B AMP
DARK CLIP
WHITE CLIP
COUNT DOWN
OSC
SUB CONV
INVERTER
4φ SHIFTER
1/4
BURST DEEMPH KILLER AMP
RP DET
P.B MAIN CONV
COLOR DET
VXO
160fH VCO
ACC DET
REC APC DET
P.B APC DET
4.43MHz VXO
REC AFC DET
P.B AFC DET
VD GEN
HALF H KILLER
ACC AMP
B.G.P GENERATOR
REC MAIN CONV BURST EMP KILLER
PHASE COMP.
SYNC TIP CLAMP
SYNC SEP
DELAY
JW3, JW6 : EA, EK, ES, EZ ONLY
R211, D23, R210, C209, TR64, R209, D22 : EG, EO, EO-G ONLY
EG, EO, EO-G ONLY
EA, EK, ES, EZ ONLY
COLOR 1 (PAL)
COLOR 2 (SECAM B/G)
B/W
COLOR MODE
SECAM
SWP
PB 9V
REC 9V
AL 9V
SP
LP
PB EQ
SP Y REC CURRENT
LP CHROMA REC CURRENT
SP CHROMA REC CURRENT
DEVIATION
PB CHROMA LEVEL
PB C LEVEL
PB CARRIER LEAK
1H DL CHROMA LEVEL
40fH FREE RUN F
DARK CLIP
WHITE CLIP
LOCAL OSC
SP STILL
2SD1302
2SA1286
2SC3401
2SC3402
2SA1115
2SC2603
E C B
001802

VIDEO PCB V1030A5430(-A)


F
G
H
I
J
K
1
2
3
4
5
6
7
8
IC2 LA7031
AGC DET 2
AGC AMP
FM DEMOD
FM LIMITER
AGC DET 1
DELAT
WHITE PEAK CLIP
SQUELCH
SYNC TIP CLAMP
SYNC SEP
EE SQUELCH
Y/C MIX
NOISE CANCELLER
DYNAMIC DEEMPHASIS
AMP
PHASE CORRECT
IC5 BU4053B
IC6 TA7347P
IC8 TA7347P
IC9 TA7347P
IC10 TA7347P
IC11 TL8705
CLOCK DRIVER
SUB VOLTAGE GENERATOR
BIAS VOLTAGE GENERATOR
SYNC TIP CLAMP
CCD 423.5 bit
S/H AMP
VGG GENE.
REF I.
IC12 BA7023
SYNC SEP
S/H
VCO
REG
V-KILLER
IC13 TA7374
SEARCH
PHASE COMP.
VCO
IC14 HD14013BP
IC15 HD14070BP
IC17 BA235A
IC18 BU4053B
FL1 LJ25LP3 4M01-32
FL4 GYV501-1T DELAY EQ
JW4 : ONLY EK, ES FL4 : EXCEPT EK, ES
JW5 : EG, EK, ES, EZ ONLY R517 : EA, EO, EO-G ONLY
FL5 SFE13.3MA
TH1 ERT022HL153S
SF1 150V 0.4A
PB Y LEVEL
CHARACTER LEVEL
DEVIATION
EE LEVEL
PB CHROMA LEVEL
CHROMA LEVEL
SKEW JUMP AFC
SP MODE
LP MODE
V PULSE
SEPARATED SYNC
REF V
V SYNC
REC HC
VD
SP STILL
P125 COM SHARP SOFT TO OPERATION PCB P130
VIDEO IN
P116 T-VIDEO GND TO DEMODULATOR PCB P111
P118 GND AO-RF TO RF CONV PCB P102
AUDIO OUT
P151 GND LA OUT(R) GND LA OUT(L) TO HIFI AUDIO PCB P157
P117 T AUDIO(R) GND T AUDIO(L) GND TA MUTE TO DEMODULATOR PCB P112
P119 VO RF GND TO RF CONV PCB P162
VIDEO OUT
P120 V SYNC INS SOW TRK VOW V J INS SYNC TO DEMODULATOR PCB P110
J152 INT EXT IN CTL TA-MUTE TO HIFI AUDIO PCB P158
P153 EE 9V LP 9V REC 9V PB 9V TO HIFI AUDIO PCB P159
P154 SWP VP SP STILL TO SYSTEM CONTROL PCB P180
P127 TRIC-H REF V REC 9 TRK GND TO SERVO (A) PCB P140 (VS-603,606 ONLY)
P121 SEP SYNC IN CTL VD TO DEMODULATOR PCB P113
P150 SW AUD(L) GND SW AUD(R) GND NA IN GND TO HIFI AUDIO PCB P156
AUDIO IN
P155 STILL CUE SKEW TO SYSTEM CONTROL PCB P181
J122 GND AL9V TO POWER SUPPLY PCB P106

B(POWER SUPPLY) LINE

REC Y SIGNAL LINE

P.B Y SIGNAL LINE

REC CHROMA SIGNAL LINE

P.B CHROMA SIGNAL LINE

VOLTAGES INDICATED ARE MEASURED
AT PB(SP) MODE WITH DIGINAL
VOLTMETER (DC).

NOTE

UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS 1/6W(J)
ALL CAPACITORS IN μF 50 WV(J)
ALL COILS IN H

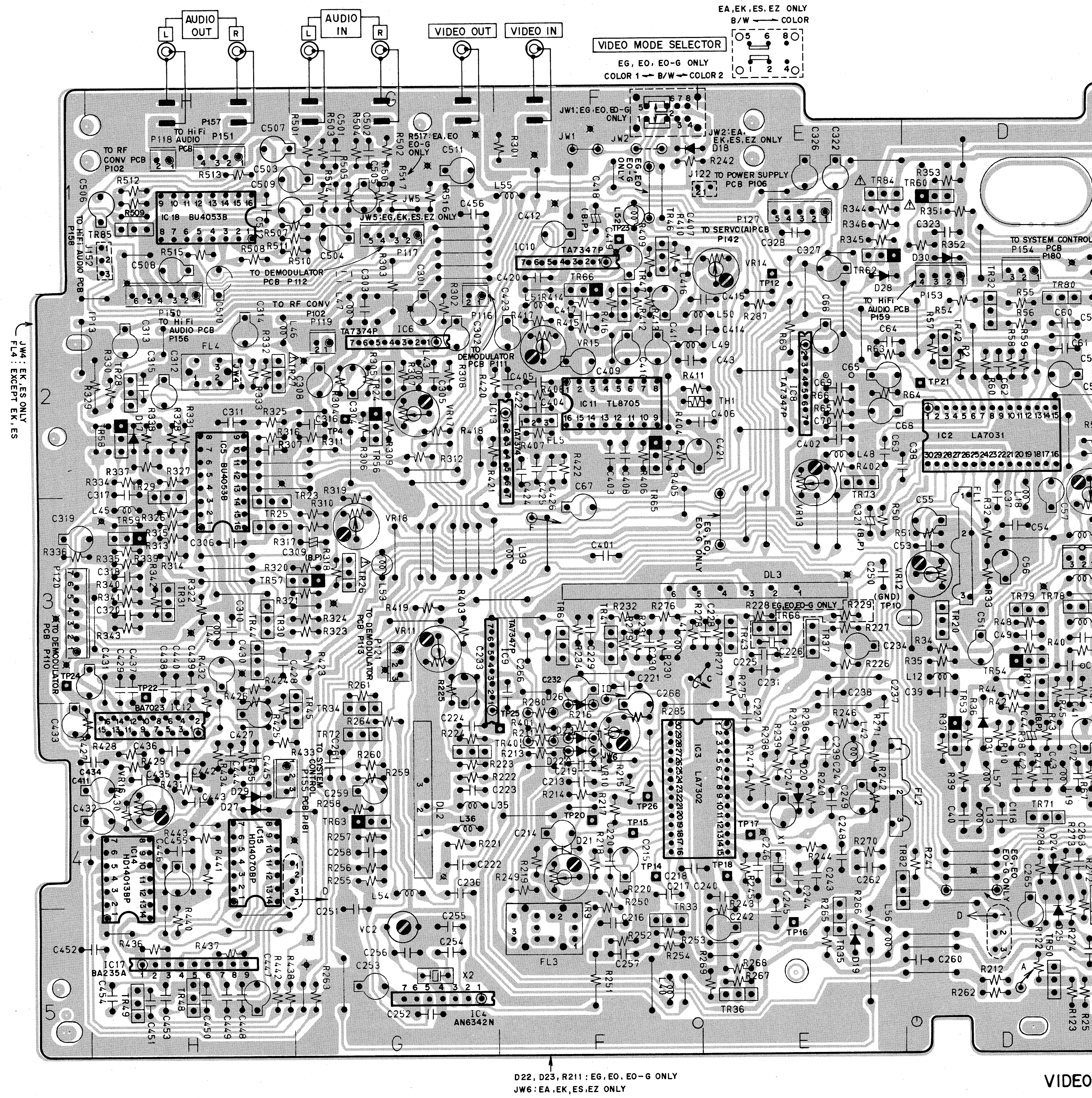
WARNING: ⚠INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY.
REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S
RECOMMENDED PARTS

AVERTISSEMENT: ⚠IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ.
POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL,
NE REMPLACER QUE DES PIÈCES RECOMMANDEES PAR LE FABRICANT

VS-626EO
VS-603EG/EK/ES/EZ
VS-606EA/EO
VS-607EO-G VIDEO
SCHEMATIC DIAGRAM

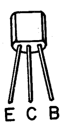
NO. 14-8 851105B

5

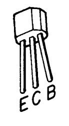

AUDIO OUT
L
R
AUDIO IN
L
R
VIDEO OUT
VIDEO IN
VIDEO MODE SELECTOR
EG, EO, EO-G ONLY
COLOR 1 ← B/W → COLOR 2
EA, EK, ES, EZ ONLY
B/W ← COLOR
JW1: EG, EO, EO-G ONLY
JW2: EA, EK, ES, EZ ONLY
JW4: EK, ES ONLY
FL4: EXCEPT EK, ES
TO RF CONV PCB P102
TO HiFi AUDIO PCB
TO DEMODULATOR PCB P112
TO POWER SUPPLY PCB P106
TO SERVO(AI)PCB P142
TO SYSTEM CONTROL PCB P180
TO HiFi AUDIO PCB P159
TO DEMODULATOR PCB P110
TO DEMODULATOR PCB P113
TO SYSTEM CONTROL PCB P155
IC18 BU4053B
IC10 TA7347P
IC6 TA7374P
IC11 TL8705
IC5 BU4053B
IC8 TA7347P
IC2 LA7031
IC13 TA7374
IC9 TA7347P
IC3 LA7302
IC12 BA7023
IC14 HD14013BP
IC15 HD14070BP
IC17 BA235A
IC4 AN6342N
DL3
DL2
FL3
FL5
D22, D23, R211: EG, EO, EO-G ONLY
JW6: EA, EK, ES, EZ ONLY

VIDEO

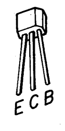
TR1 to 10, 12 to 27,
29 to 44, 46 to 50, 68 .... 2SC2603 (D,E,F)
TR11, 45 .... 2SD1302 (S,T)
TR28 .... 2SC1213 (C)
TR51 to 60, 62 to 67 .... 2SA1115 (D,E,F)
TR61, 74 to 82 .... 2SC3402 (E,F,G)
TR69 to 73, 85 .... 2SC3401
TR84 .... 2SA1286 (G,H,J)



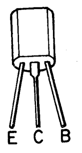
2SD1302



2SA1115
2SC2603



2SC3401
2SC3402

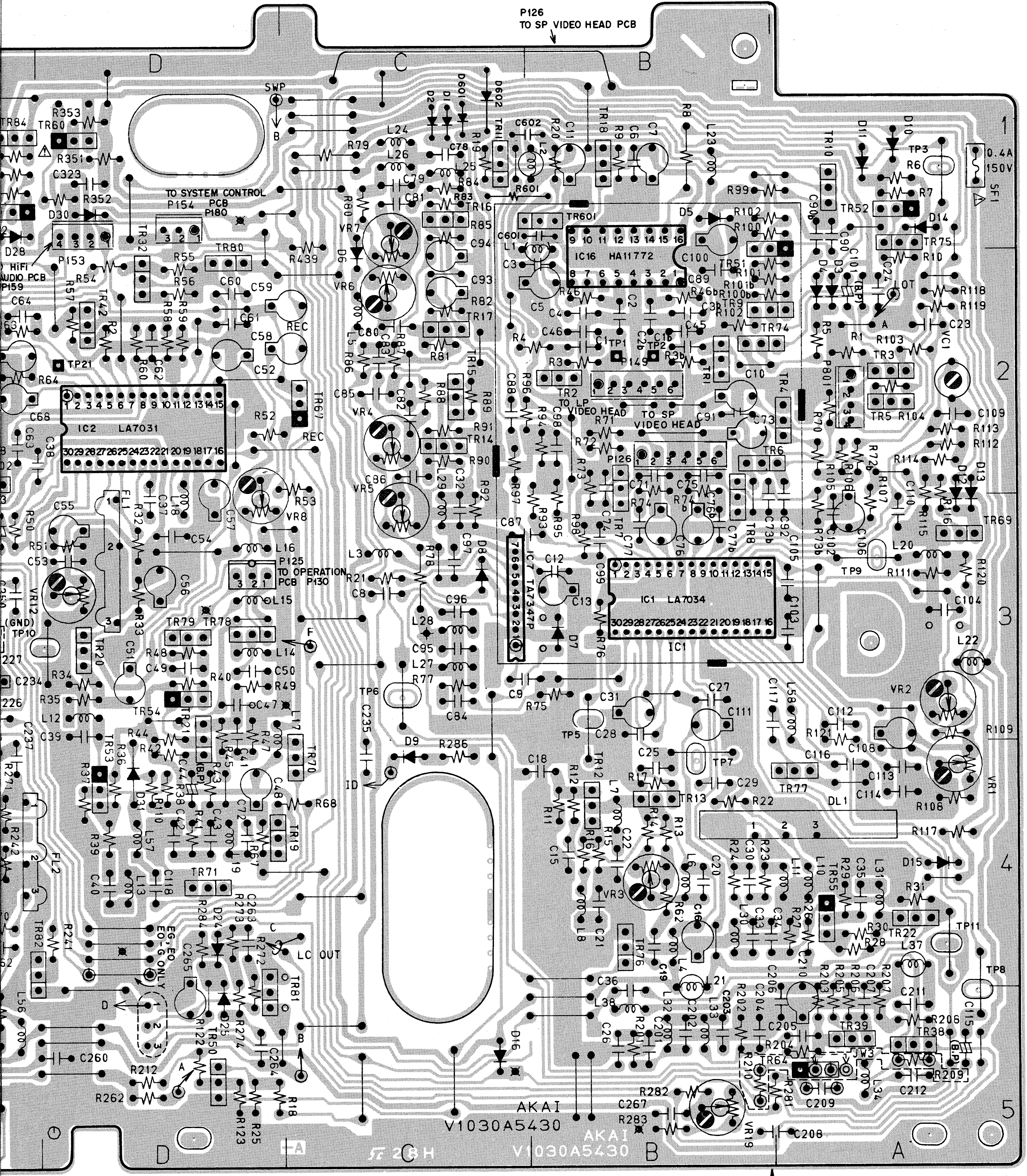


2SA1286

■●● PNP TRANSIS
●●● NPN TRANSI

WARNING: ⚠INDICATES SAFE
REPLACE SAFETY C
RECOMMENDED PA

AVERTISSEMENT: ⚠IL INDIQU
POUR MAINTENIR L
NE REMPLACER QU


P126
TO SP VIDEO HEAD PCB
TO SYSTEM CONTROL PCB
P154
P180
HiFi AUDIO PCB
P159
P153
IC2 LA7031
IC16 HA11772
IC7 TA7347P
IC1 LA7034
TO LP VIDEO HEAD
TO SP VIDEO HEAD
P126
P149
P125
TO OPERATION PCB P130
P801 TEST POINT
0.4A 150V
SF1
SWP
REC
LC OUT
EG, EO
EO-G ONLY
AKAI
V1030A5430
1
2
3
4
5
A
B
C
D

VIDEO PCB V1030A5430(-A)

TR64, R209, R210: EG, EO, EO-G ONLY
JW3: EA, EK, ES, EZ ONLY

■●● PNP TRANSISTOR
□●● NPN TRANSISTOR

NOTE.
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS 1/6W (J)
ALL CAPACITORS IN μF 50WV (J)

WARNING: ⚠ INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

AVERTISSEMENT: ⚠ IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDÉES PAR LE FABRICANT

LOCATION OF COMPONENTS

〈IC〉

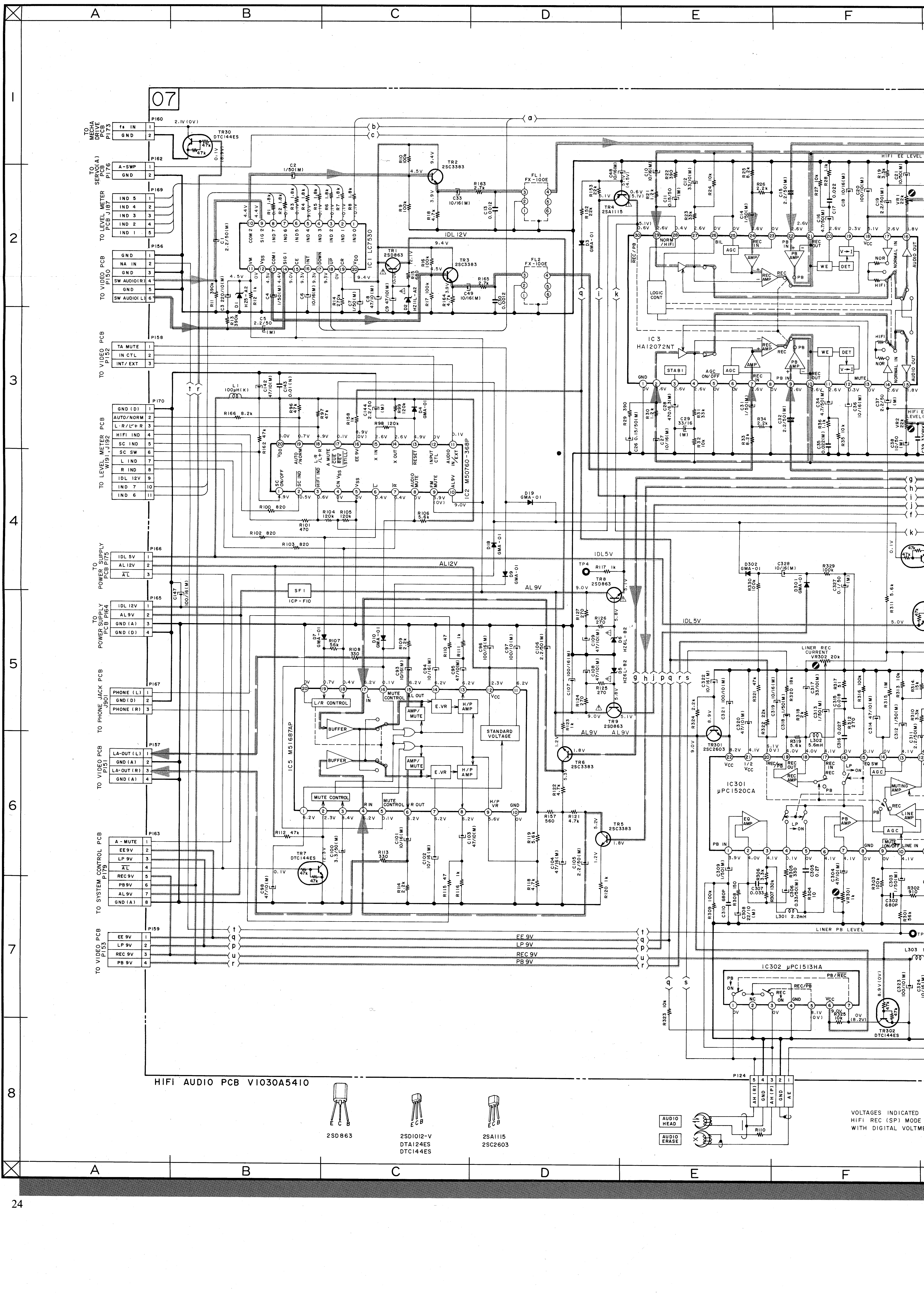
IC1	B3
IC2	D2
IC3	F4
IC4	G5
IC5	H2
IC6	G2
IC7	B3
IC8	E2
IC9	G3
IC10	F1
IC11	F2
IC12	H4
IC13	F2
IC14	H4
IC15	H4
IC16	B2
IC17	H5
IC18	H1

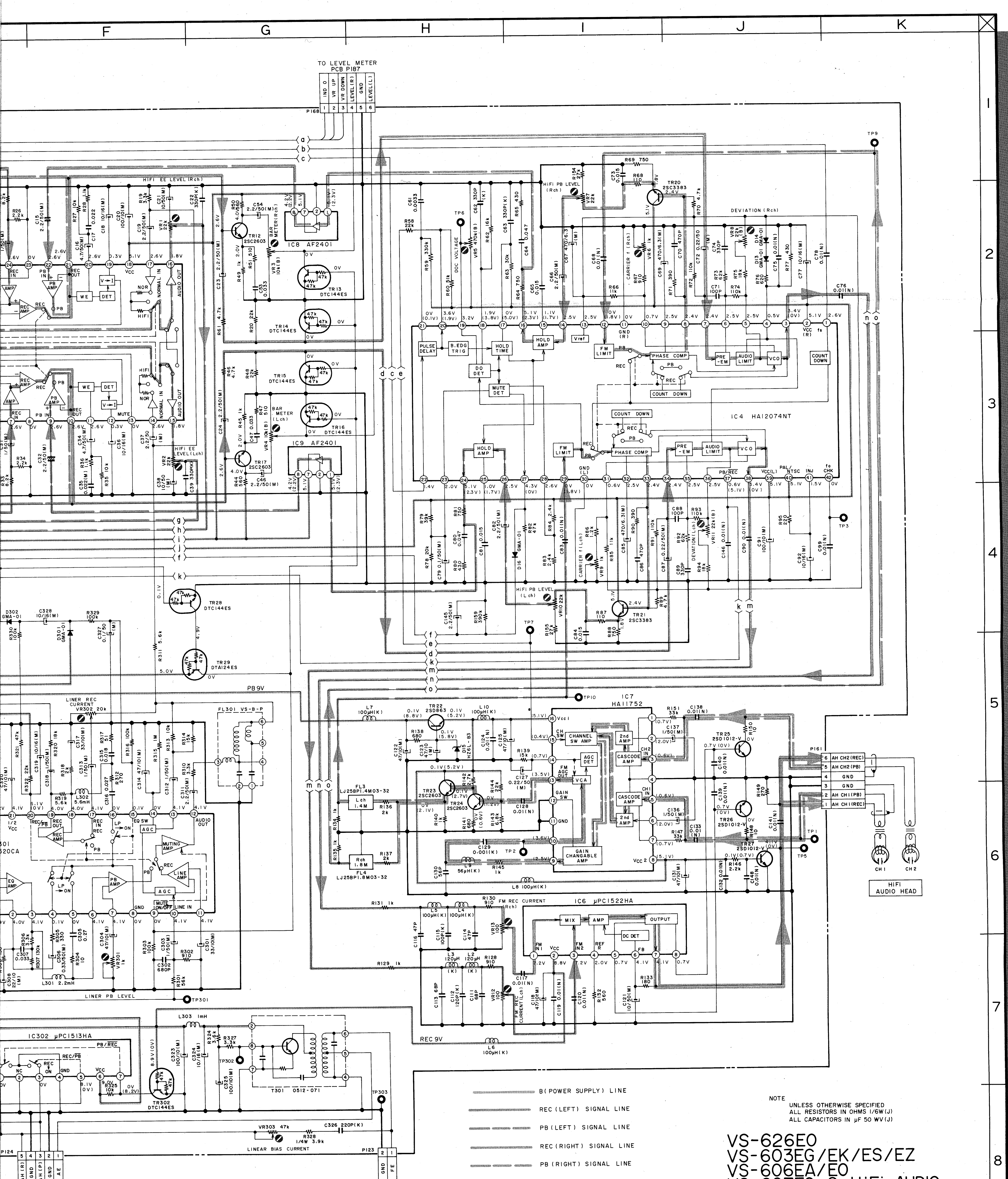
〈TR〉

TR1	B2
TR2	B2
TR3	A2
TR4	B2
TR5	A2
TR6	B2
TR7	B2
TR8	B3
TR9	B2
TR10	A1
TR11	C1
TR12	B4
TR13	B4
TR14	C2
TR15	C2
TR16	C1
TR17	C2
TR18	B1
TR19	D4
TR20	D3
TR21	D3
TR22	A4
TR23	H3
TR24	G2
TR25	H3
TR26	G3
TR27	H2
TR28	H2
TR29	H2
TR30	H3
TR31	H3
TR32	D2
TR33	F5
TR34	G4
TR35	E5
TR36	E5
TR37	E3
TR38	A5
TR39	A5
TR40	G4
TR41	F3
TR42	D2
TR43	E3
TR44	H3
TR45	G4
TR46	F1
TR47	F2
TR48	H5
TR49	H5
TR50	D5
TR51	B2
TR52	A1
TR53	D4
TR54	D3
TR55	A4
TR56	G2
TR57	G3
TR58	H2
TR59	H3
TR60	D1
TR61	F3
TR62	E1
TR63	G4
TR64	A5
TR65	F2
TR66	F1
TR67	C2
TR68	E3
TR69	A3
TR70	C4
TR71	D4
TR72	G4
TR73	E2
TR74	B2
TR75	A1
TR76	B4
TR77	A4
TR78	D3
TR79	D3
TR80	D2
TR81	D5
TR82	E4
TR84	E1
TR85	H1

〈TERMINAL〉

P116	G2
P117	G1
P118	H1
P119	G2
P120	H3
P121	G3
J122	E1
P125	D3
P126	B2
P127	E1
P149	B2
P150	H2
P151	H1
J152	H1
P153	D1
P154	D1
P155	H4
P801	A2
①	D2
②	D1


07
HIFI AUDIO PCB V1030A5410
TO MECHA DRIVE PCB P173
fs IN
GND
TR30 DTC144ES
TO SERVO(A) PCB P176
A-SWP
GND
TO LEVEL METER PCB J187
IND 5
IND 4
IND 3
IND 2
IND 1
TO VIDEO PCB P150
GND
NA IN
GND
SW AUDIO(R)
GND
SW AUDIO(L)
TO VIDEO PCB P152
TA MUTE
IN CTL
INT/EXT
TO LEVEL METER PCB W191, J192
GND (D)
AUTO/NORM
L·R/L+R
HIFI IND
SC IND
SC SW
L IND
R IND
IDL 12V
IND 7
IND 6
TO POWER SUPPLY PCB P175
IDL 5V
AL 12V
AL
TO POWER SUPPLY PCB P164
IDL 12V
AL9V
GND (A)
GND (D)
TO PHONE JACK PCB J901
PHONE (L)
GND (D)
PHONE (R)
TO VIDEO PCB P151
LA-OUT (L)
GND (A)
LA-OUT (R)
GND (A)
TO SYSTEM CONTROL PCB P179
A-MUTE
EE9V
LP 9V
AL
REC9V
PB9V
AL9V
GND (A)
TO VIDEO PCB P153
EE 9V
LP 9V
REC 9V
PB 9V
IC1 LC7530
TR1 2SD863
TR2 2SC3383
TR3 2SC3383
TR4 2SA1115
FL1 FX-100E
FL2 FX-100E
IC2 M50760-368P
IC3 HA12072NT
IC5 M51687AP
IC301 μPC1520CA
IC302 μPC1513HA
TR5 2SC3383
TR6 2SC3383
TR7 DTC144ES
TR8 2SD863
TR9 2SD863
TR301 2SC2603
TR302 DTC144ES
SF1 ICP-F10
L1 100μH(K)
LOGIC CONT
NORM /HIFI
AGC
REC AMP
PB AMP
WE
DET
STABI
REC IN
REC OUT
PB IN
MUTE
NORMAL IN
AUDIO OUT
HIFI EE LEVEL
L/R CONTROL
BUFFER
MUTE CONTROL
AMP/MUTE
E.VR
H/P AMP
STANDARD VOLTAGE
LINER REC CURRENT VR302 20k
EQ AMP
LP ON
EQ SW
MUTING AMP
LINE AMP
LINE IN
LINER PB LEVEL
PB/REC
REC/PB
P124
AH (R)
GND
AH (P)
GND
AE
AUDIO HEAD
AUDIO ERASE
R110
2SD863
2SD1012-V DTA124ES DTC144ES
2SA1115 2SC2603
E C B
VOLTAGES INDICATED
HiFi REC (SP) MODE
WITH DIGITAL VOLTME


TO LEVEL METER
PCB P187
IND 0
VR UP
VR DOWN
LEVEL (R)
GND
LEVEL (L)
P168
HIFI EE LEVEL (Rch)
HIFI EE LEVEL (Lch)
IC8 AF2401
IC9 AF2401
TR12 2SC2603
TR13 DTC144ES
TR14 DTC144ES
TR15 DTC144ES
TR16 DTC144ES
TR17 2SC2603
BAR METER (Rch)
BAR METER (Lch)
TP6
TP9
TP3
TP7
TP10
TP1
TP2
TP5
HiFi PB LEVEL (Rch)
HiFi PB LEVEL (Lch)
TR20 2SC3383
TR21 2SC3383
DEVIATION (Rch)
DEVIATION (Lch)
CARRIER f (Rch)
CARRIER f (Lch)
DOC VOLTAGE
PULSE DELAY
B.EDG TRIG
DO DET
HOLD TIME
MUTE DET
HOLD AMP
Vref
FM LIMIT
PHASE COMP
COUNT DOWN
PRE -EM
AUDIO LIMIT
VCO
IC4 HA12074NT
TR28 DTC144ES
TR29 DTA124ES
PB9V
LINER REC CURRENT
FL301 VS-B-P
IC7 HA11752
TR22 2SD863
TR23 2SC2603
TR24 2SC2603
TR25 2SD1012-V
TR26 2SD1012-V
TR27 2SD1012-V
FL3 LJ25BP1.4M03-32
FL4 LJ25BP1.8M03-32
CHANNEL SW AMP
2nd AMP
CASCODE AMP
AGC DET
VCA
GAIN SW
GAIN CHANGABLE AMP
P161
AH CH2 (REC)
AH CH2 (PB)
GND
GND
AH CH1 (PB)
AH CH1 (REC)
CH1
CH2
HIFI AUDIO HEAD
IC6 μPC1522HA
FM REC CURRENT (Rch)
FM REC CURRENT (Lch)
MIX
AMP
OUTPUT
DC DET
LINER PB LEVEL
TP301
IC302 μPC1513HA
REC9V
L303 1mH
TP302
T301 0512-071
TR302 DTC144ES
TP303
VR303 47k
R328 1/4W 3.9k
C326 220P(K)
LINEAR BIAS CURRENT
P123
GND
FE
P124
AH (R)
AH (P)
GND
AE
R110
FULL ERASE HEAD
F
G
H
I
J
K
1
2
3
4
5
6
7
8

B(POWER SUPPLY) LINE

REC (LEFT) SIGNAL LINE

PB (LEFT) SIGNAL LINE

REC (RIGHT) SIGNAL LINE

PB (RIGHT) SIGNAL LINE

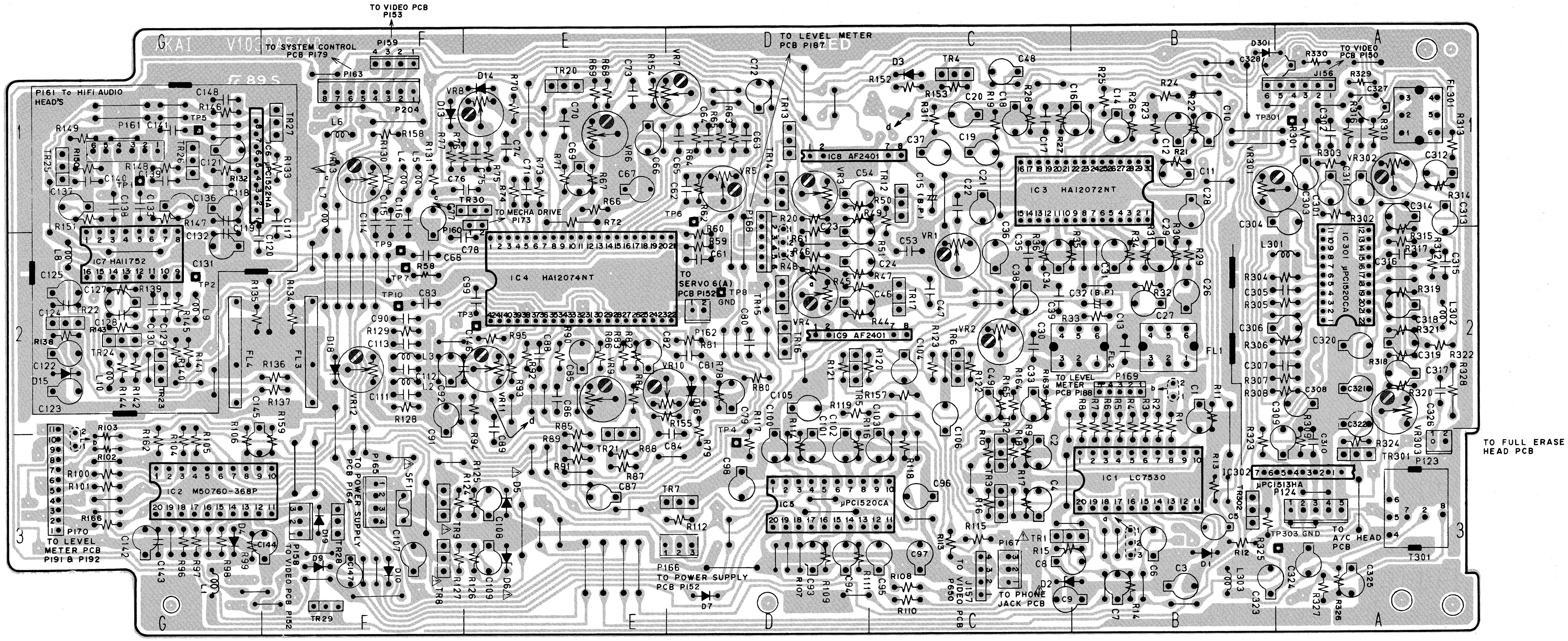
NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS 1/6W(J)
ALL CAPACITORS IN μF 50 WV(J)

VOLTAGES INDICATED ARE MEASURED AT
HiFi REC (SP) MODE, IN ( ) AT PB (SP) MODE
WITH DIGITAL VOLTMETER (DC).

WARNING: ⚠INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY,
REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S
RECOMMENDED PARTS

AVERTISSEMENT: ⚠IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ.
POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL,
NE REMPLACER QUE DES PIÈCES RECOMMANDEES PAR LE FABRICANT

VS-626EO
VS-603EG/EK/ES/EZ
VS-606EA/EO
VS-607EO-G HiFi AUDIO
SCHEMATIC DIAGRAM
NO. 14-9 860522A


TO VIDEO PCB P153
P159
TO SYSTEM CONTROL PCB P179
P163
P204
P161 To HiFi AUDIO HEADS
TO MECHA DRIVE P173
TO SERVO 6(A) PCB P152
TO LEVEL METER PCB P187
TO VIDEO PCB P150
J156
TO FULL ERASE HEAD PCB
TO LEVEL METER PCB P188
P169
TO A/C HEAD PCB
P123
P124
T301
TO LEVEL METER PCB P191 & P192
P170
TO POWER SUPPLY PCB P164
P165
P158
TO VIDEO PCB P152
P166
TO POWER SUPPLY PCB P152
TO VIDEO PCB P650
J157
P167
TO PHONE JACK PCB
IC1 LC7530
IC2 M50760-368P
IC3 HA12072NT
IC4 HA12074NT
IC5 μPC1520CA
IC6 μPC1522HA
IC7 HA11752
IC8 AF2401
IC9 AF2401
IC301 μPC1520CA
IC302 μPC1513HA
TP1
TP2
TP3
TP4
TP5
TP6
TP7
TP8
TP9
TP10
TP301
TP303 GND
A
B
C
D
E
F
G
1
2
3

HiFi AUDIO PCB V1030A5410(2ED)

〈 LOCATION OF COMPONENTS 〉

(IC)	
IC1	B3
IC2	G3
IC3	B1
IC4	E2
IC5	D3
IC6	G1
IC7	G2
IC8	D1
IC9	D2
IC301	A2
IC302	A3

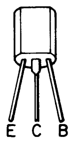
(TR)	
TR1	C3
TR2	C3
TR3	C3
TR4	C1
TR5	D2
TR6	C2
TR7	D3
TR8	F3
TR9	F3
TR12	C1
TR13	D1
TR14	D1
TR15	D2
TR16	D2
TR17	C2
TR20	E1
TR21	E3
TR22	G2
TR23	G2
TR24	G2
TR25	G1
TR26	G1
TR27	F1
TR28	F3
TR29	F3
TR30	E1
TR301	**A3**
TR302	**A3**

(CONNECTOR)	
P123	A3
P124	A3
P156	A1
J157	C3
P158	F3
P159	F1
J160	E1
P161	G1
P162	D2
P165	F3
P166	D3
P167	C3
P168	D2
P169	B2
P170	G3
P193	G3
P204	**F1**

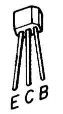
(TP)	
TP1	G1
TP2	G2
TP3	E2
TP4	D3
TP5	G1
TP6	D1
TP7	F2
TP8	D2
TP9	F2
TP10	F2

〈 ADJUSTMENT POINTS 〉

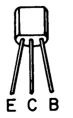
VR	1	EE LEVEL (R)
	2	EE LEVEL (L)
	3	METER (R)
	4	METER (L)
	5	DOC VOLTAGE
	6	CARRIER f(R)
	7	HiFi PB LEVEL (R)
	8	DEVIATION (R)
	9	CARRIER f(L)
	10	HiFi PB LEVEL (L)
	11	DEVIATION (L)
	12	FM REC CURRENT (L)
	13	FM REC CURRENT (R)
	301	LINEAR PB LEVEL
	302	LINEAR REC CURRENT
	303	LINEAR BIAS CURRENT



2SD863 - V8



2SA1115
2SC2603
2SD1012-V
DTA124ES
DTC144ES



2SA1391

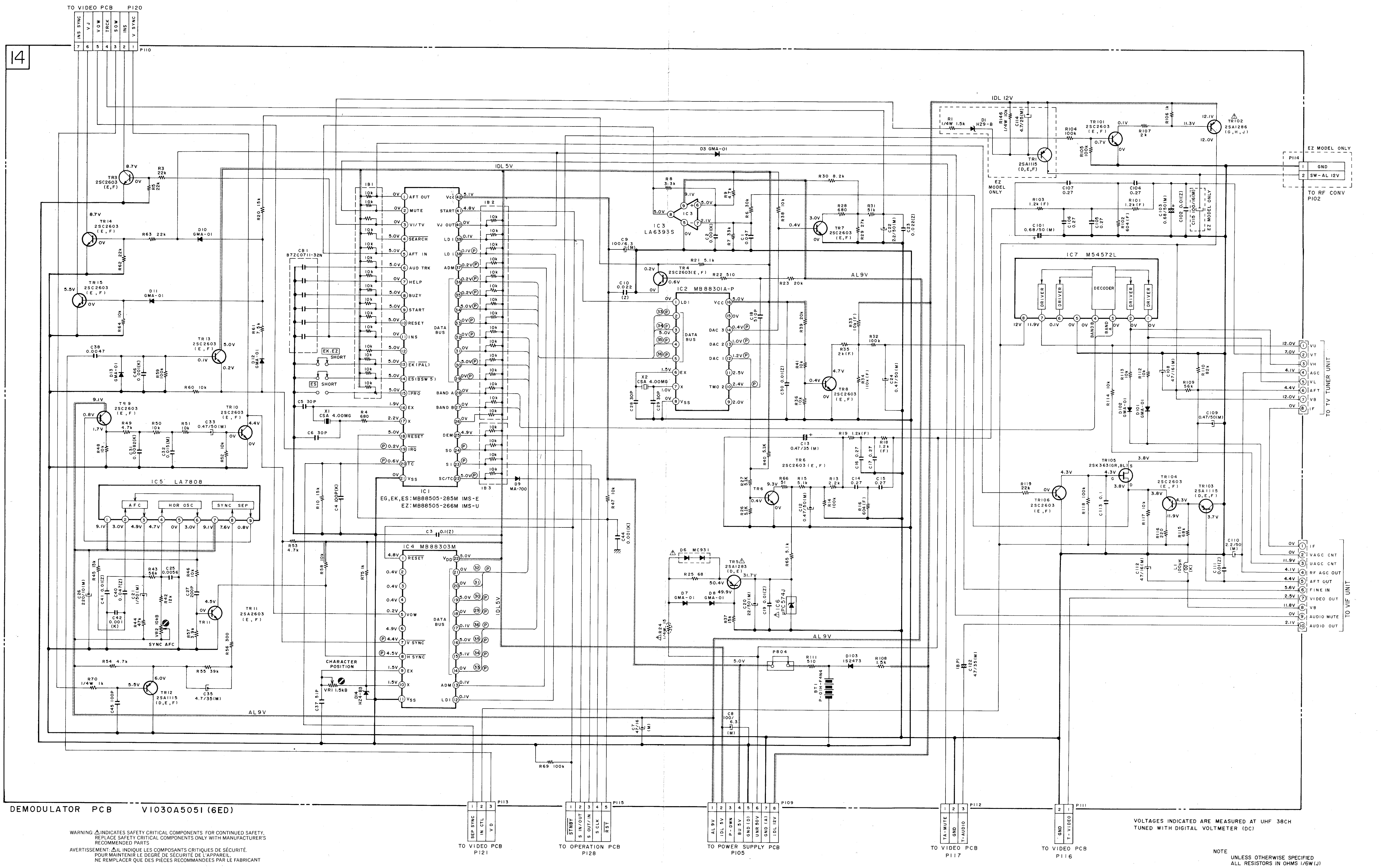
B
■●● = PNP TRANSISTOR

B
●●● = NPN TRANSISTOR

TR1, 8, 9 ------------- 2SD863-V8 (F)
TR2, 3, 5, 6, 20, 21 ---- 2SC3383 (S, T)
TR4 ------------------ 2SA1115 (E, F, G)
TR7, 13 to 16, 28, 30,
302 ----- DTC144ES
TR12, 17, 23, 24, 301 ---- 2SC2603 (G)
TR25 to 27 ------------ 2SD1012-V (H)
TR29 ---------------- DTA124ES

WARNING: ⚠INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY,
REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S
RECOMMENDED PARTS

AVERTISSEMENT: ⚠IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ.
POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL,
NE REMPLACER QUE DES PIÈCES RECOMMANDEES PAR LE FABRICANT


TO VIDEO PCB P120
INS SYNC
V J
VOW
TRCK
SDW
INS
V SYNC
P110
14
IDL 5V
IDL 12V
AL9V
IC1 EG,EK,ES:MB88505-285M IMS-E EZ:MB88505-266M IMS-U
IC2 MB88301A-P
IC3 LA6393S
IC4 MB88303M
IC5 LA7808
IC7 M54572L
AFC
HOR OSC
SYNC SEP
DRIVER
DECODER
DATA BUS
CHARACTER POSITION
SYNC AFC
EK,EZ SHORT
ES SHORT
EZ MODEL ONLY
TO RF CONV P102
TO TV TUNER UNIT
TO VIF UNIT
P113
TO VIDEO PCB P121
P115
TO OPERATION PCB P128
P109
TO POWER SUPPLY PCB P105
P112
TO VIDEO PCB P117
P111
TO VIDEO PCB P116
DEMODULATOR PCB V1030A5051 (6ED)

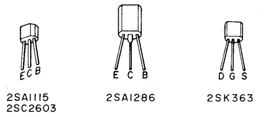
WARNING: ⚠ INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

AVERTISSEMENT: ⚠ IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDEES PAR LE FABRICANT

VOLTAGES INDICATED ARE MEASURED AT UHF 38CH TUNED WITH DIGITAL VOLTMETER (DC)

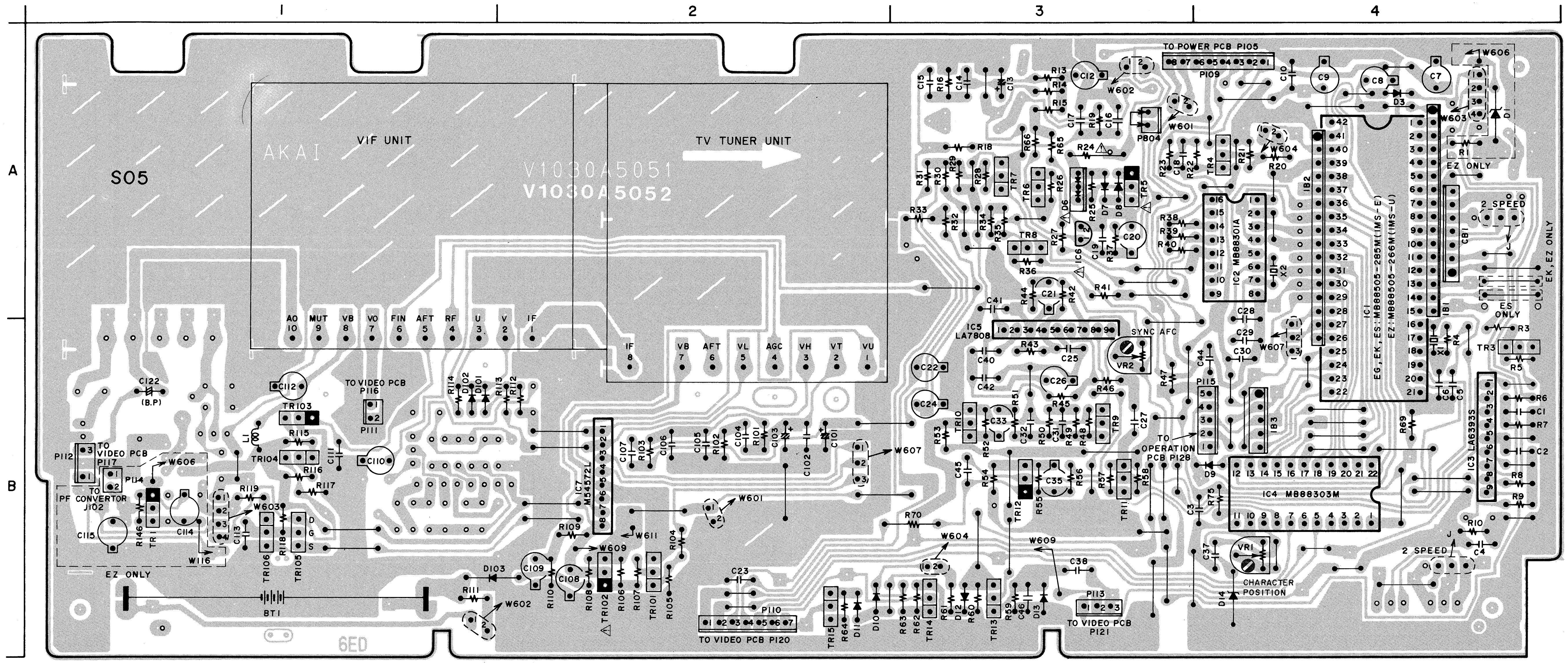
NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS 1/6W(J)
ALL CAPACITORS IN μF 50 WV(J)

+B(POWER SUPPLY) LINE


2SA1115
2SC2603
2SA1286
2SK363

VS-603EG/EK/ES/EZ
DEMODULATOR
SCHEMATIC DIAGRAM
NO. 14-10 850416D

001648


1
2
3
4
A
B
S05
AKAI
VIF UNIT
TV TUNER UNIT
V1030A5051
V1030A5052
TO POWER PCB P105
TO VIDEO PCB P116
TO VIDEO PCB P117
TO PF CONVERTOR J102
TO VIDEO PCB P120
TO VIDEO PCB P121
TO OPERATION PCB P128
IC1 EG,EK,ES:MB88505-285M(IMS-E) EZ:MB88505-266M(IMS-U)
IC2 MB8830IA
IC3 LA6393S
IC4 MB88303M
IC5 LA7808
IC7 M54572L
SYNC AFC
CHARACTER POSITION
EZ ONLY
2 SPEED
ES ONLY
EK,EZ ONLY
BT1
6ED

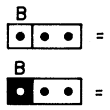
DEMODULATOR PCB V1030A5051 (6ED)

LOCATION OF COMPONENTS

TRs	
TR1	B1
TR3	B4
TR4	A4
TR5 to 8	A3
TR9 to 15	B3
TR101	B2
TR102	B2
TR103	B1
TR104	B1
TR105	B1
TR106	B1

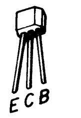
ICs	
IC1	A4
IC2	A4
IC3	B4
IC4	B4
IC5	A3
IC6	A3
IC7	B2

TR3,4,6 to 11,13
14,15,101,104,106 -- 2SC2603
TR5 ------------ 2SA1283
TR1,12,103 ------ 2SA1115
TR102 ---------- 2SA1286
TR105 ---------- 2SK363

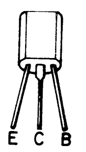


= NPN TRANSISTOR

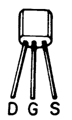
= PNP TRANSISTOR



2SA1115
2SC2603



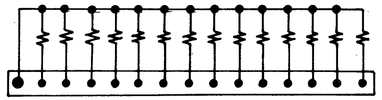
2SA1286
2SA1283



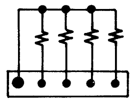
2SK363

WARNING: ⚠INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

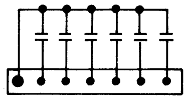
AVERTISSEMENT: ⚠IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDEES PAR LE FABRICANT



IB1, 2

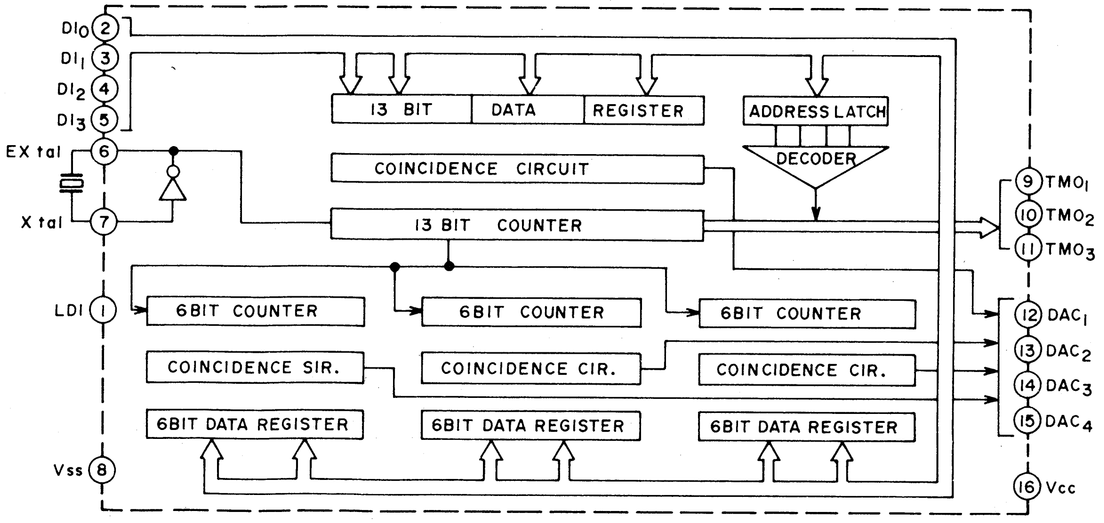


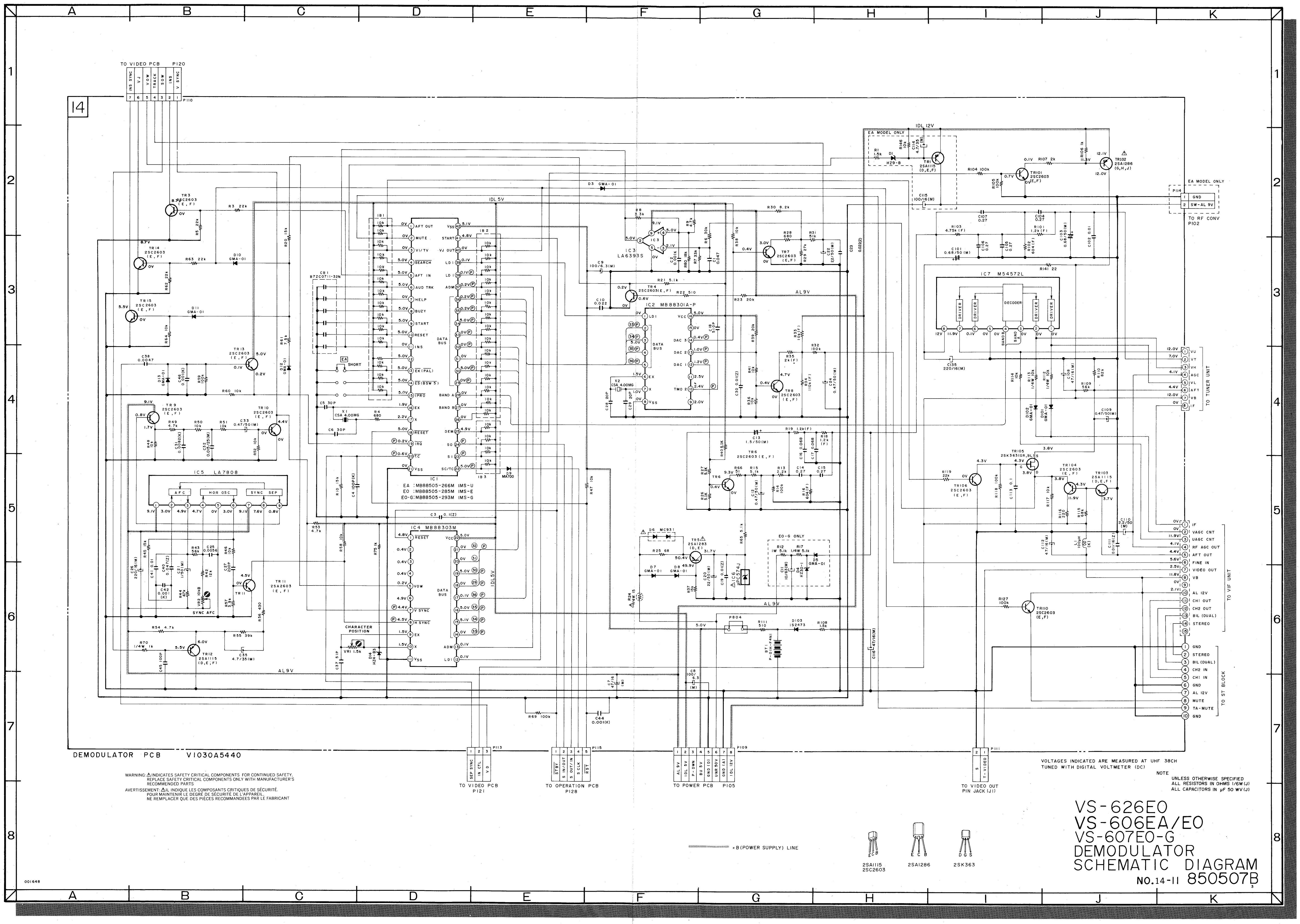
IB3



CB1

M88301A-P (D/A CONVERTER)


DI0 2
DI1 3
DI2 4
DI3 5
EX tal 6
X tal 7
LDI 1
Vss 8
13 BIT DATA REGISTER
ADDRESS LATCH
DECODER
COINCIDENCE CIRCUIT
13 BIT COUNTER
6BIT COUNTER
6BIT COUNTER
6BIT COUNTER
COINCIDENCE SIR.
COINCIDENCE CIR.
COINCIDENCE CIR.
6BIT DATA REGISTER
6BIT DATA REGISTER
6BIT DATA REGISTER
9 TMO1
10 TMO2
11 TMO3
12 DAC1
13 DAC2
14 DAC3
15 DAC4
16 Vcc


14
TO VIDEO PCB P120
INS SYNC
V J
VOW
TRACK
SOW
INS
V SYNC
P110
IDL 5V
IDL 12V
EA MODEL ONLY
AL9V
IC1
EA : MB88505-266M IMS-U
EO : MB88505-285M IMS-E
EO-G : MB88505-293M IMS-G
IC2 MB88301A-P
IC3 LA6393S
IC4 MB88303M
IC5 LA7808
IC7 M54572L
AFC
HOR OSC
SYNC SEP
SYNC AFC
DECODER
DRIVER
DATA BUS
CHARACTER POSITION
EO-G ONLY
P114
GND
SW-AL 9V
TO RF CONV P102
TO TUNER UNIT
TO VIF UNIT
TO ST BLOCK
VU
VT
VH
AGC
VL
AFT
VB
IF
VAGC CNT
UAGC CNT
RF AGC OUT
AFT OUT
FINE IN
VIDEO OUT
VB
AL 12V
CH1 OUT
CH2 OUT
BIL (DUAL)
STEREO
GND
STEREO
BIL (DUAL)
CH2 IN
CH1 IN
GND
AL 12V
MUTE
TA-MUTE
GND
DEMODULATOR PCB V1030A5440
P113
SEP SYNC
IN CTL
V D
TO VIDEO PCB P121
P115
STBY
S IN/OUT IN
S CLK
RST
TO OPERATION PCB P128
P109
AL 9V
IDL 5V
P-DWN
BU 5V
GND (D)
UNB 50V
GND (A)
IDL 12V
TO POWER PCB P105
P111
S
T-VIDEO
TO VIDEO OUT PIN JACK (J1)
= B(POWER SUPPLY) LINE
2SA1115
2SC2603
2SA1286
2SK363
001649

WARNING: ⚠INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

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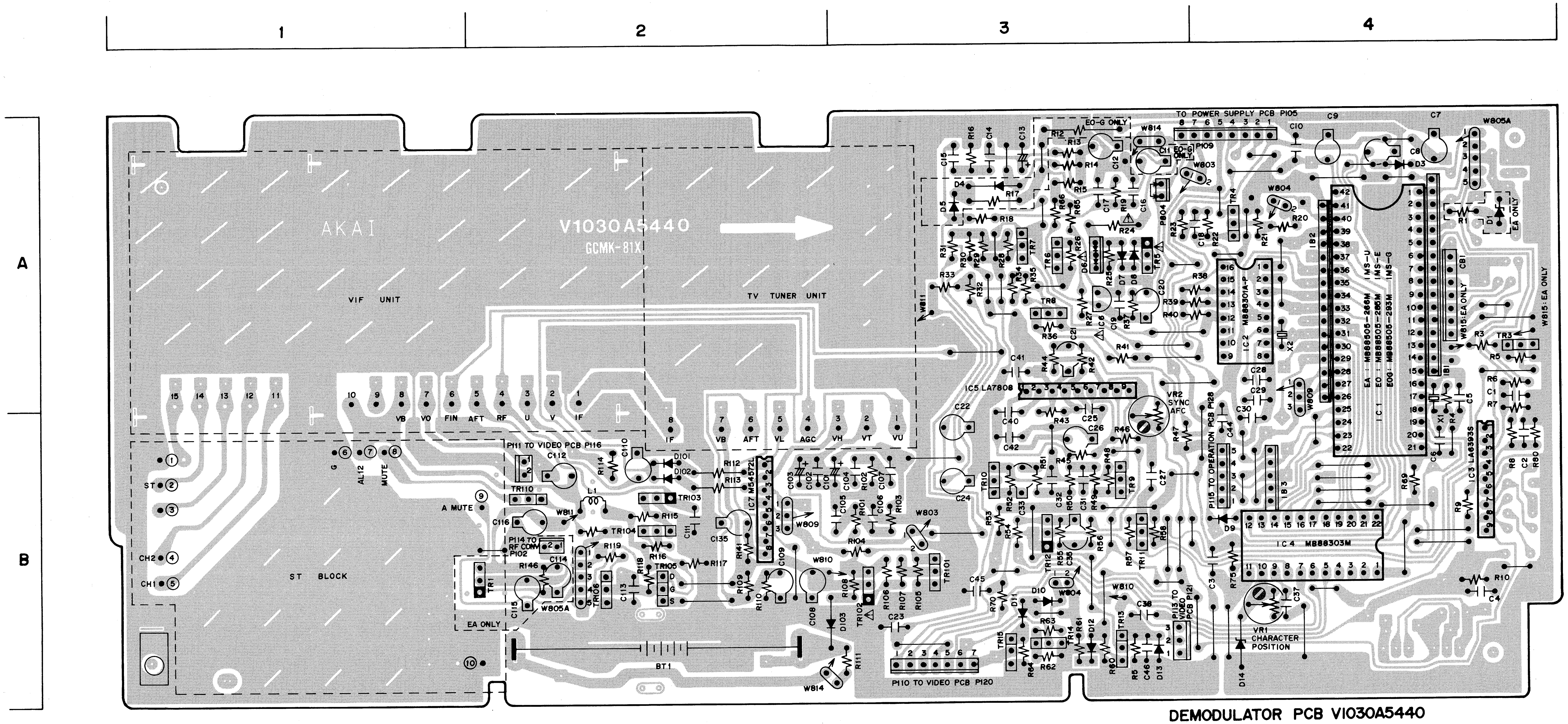
VOLTAGES INDICATED ARE MEASURED AT UHF 38CH TUNED WITH DIGITAL VOLTMETER (DC)

NOTE

UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS 1/6W(J)
ALL CAPACITORS IN μF 50 WV(J)

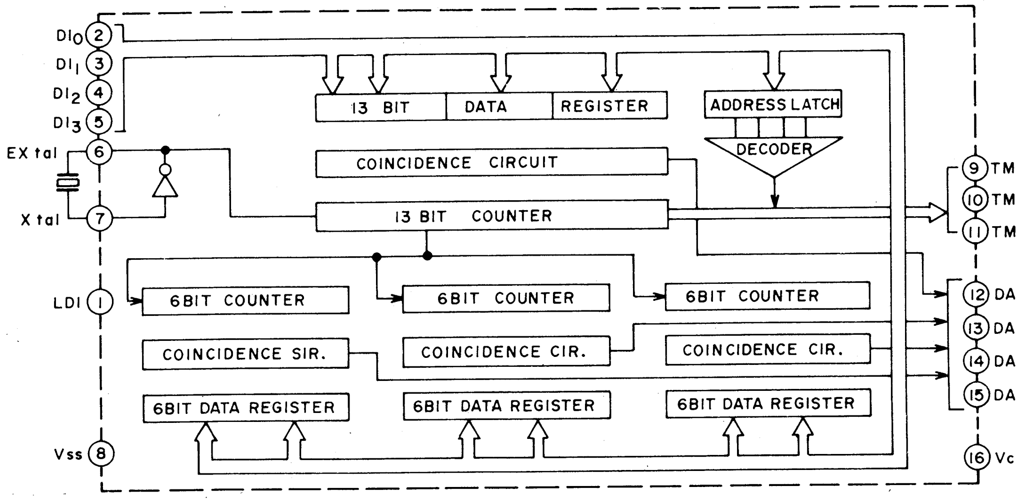
VS-626EO
VS-606EA/EO
VS-607EO-G
DEMODULATOR SCHEMATIC DIAGRAM

NO.14-11 850507B


1
2
3
4
A
B
AKAI
V1030A5440
GCMK-81X
VIF UNIT
TV TUNER UNIT
ST BLOCK
VB VO FIN AFT RF U V IF
IF VB AFT VL AGC VH VT VU
TO POWER SUPPLY PCB P105
P109
EO-G ONLY
EA ONLY
W815:EA ONLY
W805A
IC1 EA : M88505-266M EO : M88505-286M EOG : M88505-293M
IMS-U IMS-E IMS-G
IC2 M88301A-P
IC3 LA6393S
IC4 M88303M
IC5 LA7808
IC7 M54572L
VR1 CHARACTER POSITION
VR2 SYNC AFC
P115 TO OPERATION PCB P128
P113 TO VIDEO PCB P121
P110 TO VIDEO PCB P120
P111 TO VIDEO PCB P116
P114 TO RF CONV P102
A MUTE
MUTE
AL12
G
ST
CH2
CH1
BT1

DEMODULATOR PCB V1030A5440

M88301A-P (D/A CONVERTER)


DI0 ②
DI1 ③
DI2 ④
DI3 ⑤
EX tal ⑥
X tal ⑦
LDI ①
Vss ⑧
13 BIT DATA REGISTER
ADDRESS LATCH
DECODER
COINCIDENCE CIRCUIT
13 BIT COUNTER
6BIT COUNTER
6BIT COUNTER
6BIT COUNTER
COINCIDENCE SIR.
COINCIDENCE CIR.
COINCIDENCE CIR.
6BIT DATA REGISTER
6BIT DATA REGISTER
6BIT DATA REGISTER
⑨ TMO1
⑩ TMO2
⑪ TMO3
⑫ DAC1
⑬ DAC2
⑭ DAC3
⑮ DAC4
⑯ Vcc

LOCATION OF COMPONENTS

〈IC〉		〈TR〉		〈TERMINAL〉	
IC1	A4	TR1	B1	P109	A4
IC2	A4	TR3,4	A4	P110	B3
IC3	B4	TR5 to 8	A3	P111	B1
IC4	B4	TR9 to 15	B3	P113	B3
IC5	B3	TR101	B3	P114	B2
IC6	A3	TR102 to 106	B2	P115	B4
IC7	B2	TR110	B1		

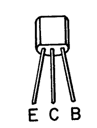
TR1, 3, 4, 6 to 11, 13 to 15, 101, 104 106, 110	2SC2603 (E,F)
TR5	2SA1283 (D,E)
TR12, 103	2SA1115 (D,E,F)
TR102	2SA1286 (G,H,J)
TR105	2SK363 (GR,BL)

▣●● = PNP TRANSISTOR

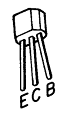
●●● = NPN TRANSISTOR

WARNING: ⚠INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY,
REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S
RECOMMENDED PARTS

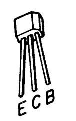
AVERTISSEMENT: ⚠IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ.
POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL,
NE REMPLACER QUE DES PIÈCES RECOMMANDEES PAR LE FABRICANT



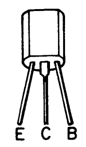
2SD1302



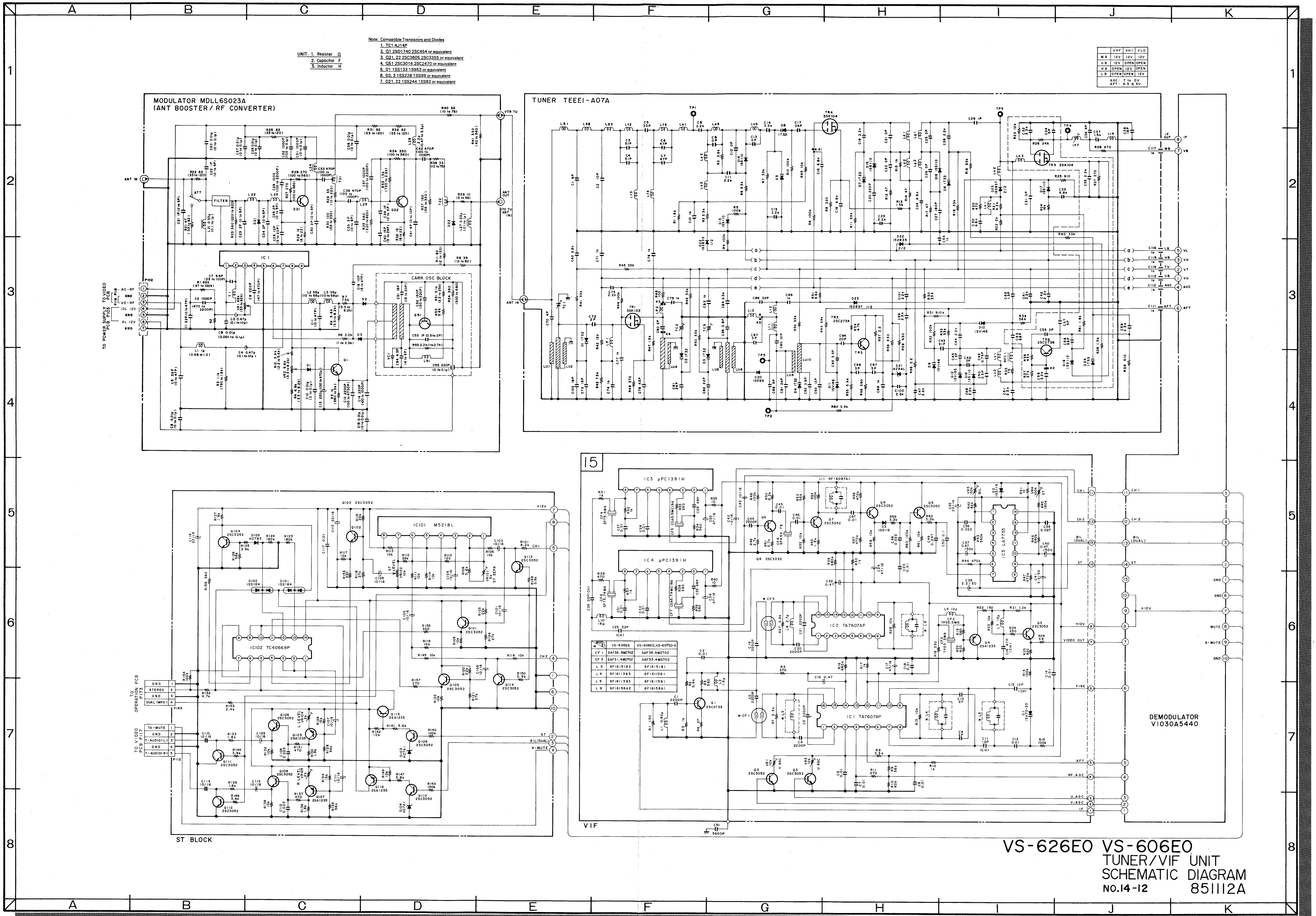
2SA1115
2SC2603



2SC3401
2SC3402



2SA1286


MODULATOR MDLL6S023A
(ANT BOOSTER/ RF CONVERTER)
TUNER TEEE1-A07A
CARR OSC BLOCK
ST BLOCK
VIF
DEMODULATOR
V1030A5440
IC1 TA7607AP
IC2 TA7607AP
IC3 μPC1391H
IC4 μPC1391H
IC5 LA7755
IC101 M5218L
IC102 TC4066BP
ANT IN
ANT OUT
ANT IN
TO POWER SUPPLY TO VIDEO PCB P119 P118
TO OPERATION PCB P173
TO VIDEO PCB P117
15

UNIT: 1. Resister Ω
2. Capacitor F
3. Inductor H

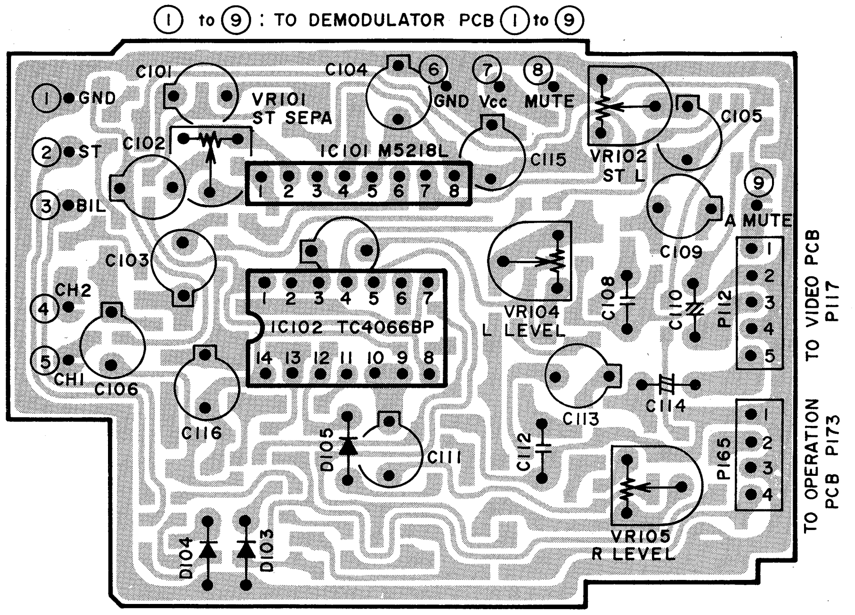
Note: Compatible Transistors and Diodes
1. TC1 AJ14P
2. Q1 2SD1740 2SC454 or equivalent
3. Q21, 22 2SC3605 2SC3355 or equivalent
4. Q51 2SC3016 2SC2470 or equivalent
5. D1 1SS133 1S953 or equivalent
6. D2, 3 1SS228 1SS99 or equivalent
7. D21, 22 1SS244 1SS83 or equivalent

	UHF	VHI	VLO
MB	12V	12V	12V
UB	12V	OPEN	OPEN
HB	OPEN	12V	OPEN
LB	OPEN	OPEN	12V
AGC: 7 to 0V AFT: 6.5 ± 6V			

* MODEL	VS-606EA	VS-606EO, VS-607EO-G
CF1	SAF36.9MZ70Z	SAF38.9MZ70Z
CF3	SAF31.4MD70Z	SAF33.4MD70Z
L3	6F16151B2	6F16151B1
L4	6F16113B3	6F16113B1
L5	6F16115B3	6F16115B1
L9	6F16158A2	6F16158A1

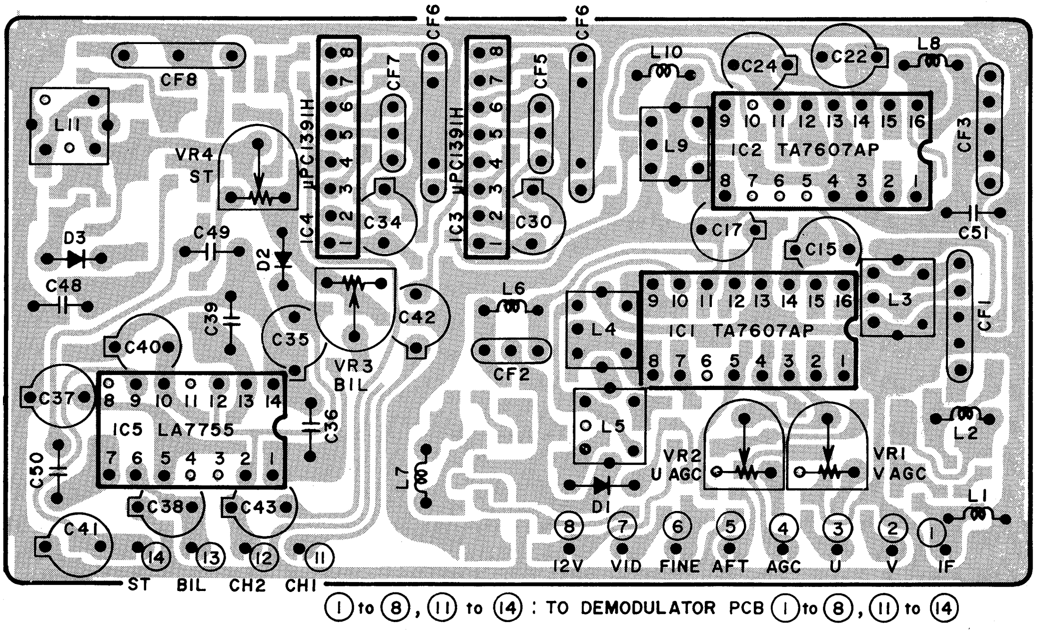
VS-626EO VS-606EO
TUNER/VIF UNIT SCHEMATIC DIAGRAM

NO.14-12 851112A


① to ⑨ : TO DEMODULATOR PCB ① to ⑨
① GND
② ST
③ BIL
④ CH2
⑤ CH1
C101
VR101 ST SEPA
C102
C103
C104
⑥ GND
⑦ Vcc
⑧ MUTE
⑨ A MUTE
IC101 M5218L
1 2 3 4 5 6 7 8
IC102 TC4066BP
1 2 3 4 5 6 7
14 13 12 11 10 9 8
C105
VR102 ST L
C115
C109
VR104 L LEVEL
C108
C110
P112
1 2 3 4 5
TO VIDEO PCB P117
C106
C116
D105
C111
C112
C113
C114
P165
1 2 3 4
TO OPERATION PCB P173
VR105 R LEVEL
D104
D103

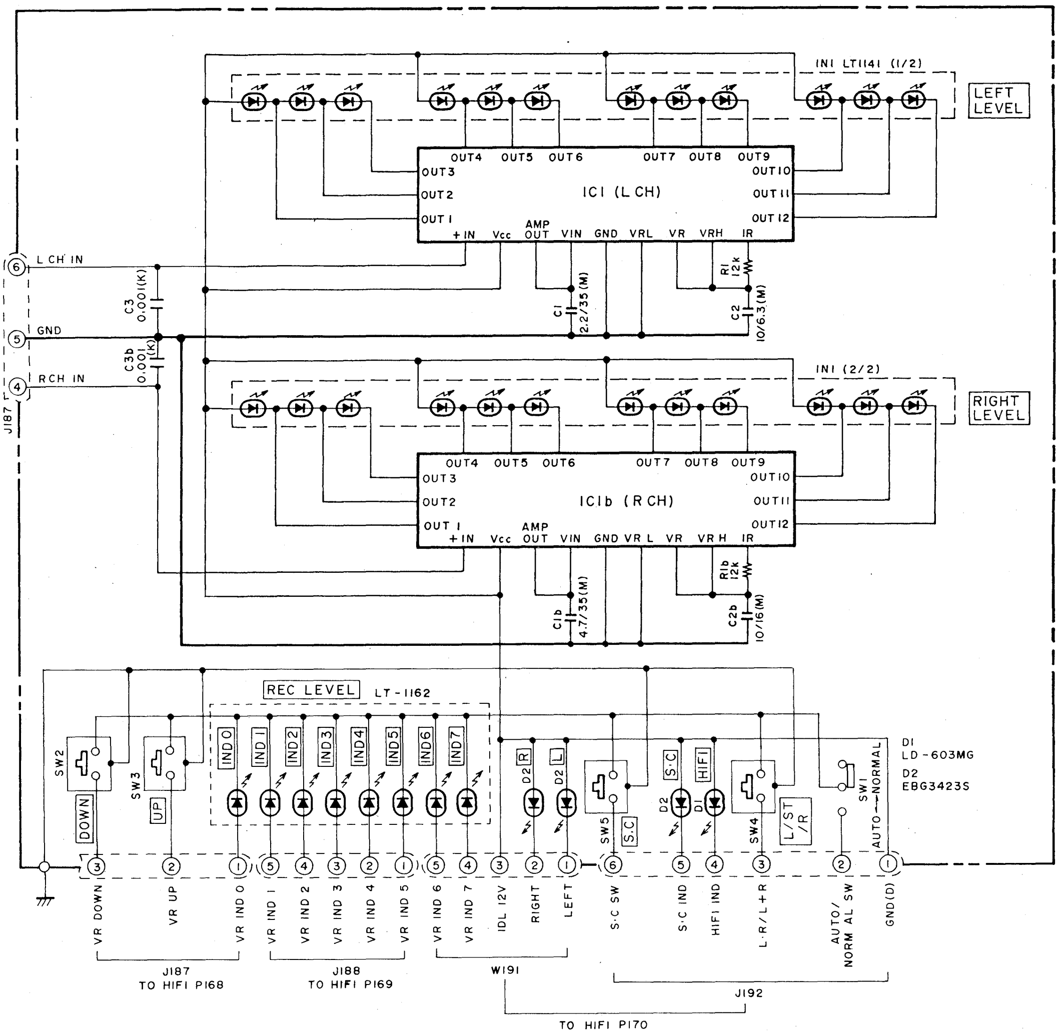
ST BLOCK 6A00151A2

NOTE: CHIP PARTS (C,R) ARE NOT SHOWN ON THESE PATTERNS


CF6
CF6
CF8
L11
VR4 ST
μPC1391H
IC4
CF7
μPC1391H
IC3
CF5
C34
C30
L10
C24
C22
L8
L9
IC2 TA7607AP
9 10 11 12 13 14 15 16
8 7 6 5 4 3 2 1
CF3
C17
C15
C51
D3
C49
D2
C48
C39
VR3 BIL
C42
C35
C40
C37
IC5 LA7755
8 9 10 11 12 13 14
7 6 5 4 3 2 1
C36
C50
C38
C43
C41
L6
CF2
L4
IC1 TA7607AP
9 10 11 12 13 14 15 16
8 7 6 5 4 3 2 1
L3
CF1
L5
L7
D1
VR2 U AGC
VR1 V AGC
L2
L1
⑧ 12V
⑦ VID
⑥ FINE
⑤ AFT
④ AGC
③ U
② V
① IF
⑭ ST
⑬ BIL
⑫ CH2
⑪ CH1
① to ⑧, ⑪ to ⑭ : TO DEMODULATOR PCB ① to ⑧, ⑪ to ⑭

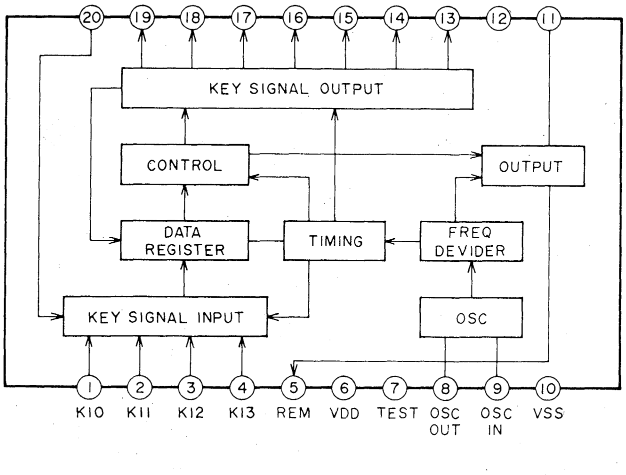
VIF UNIT 6A00138A1

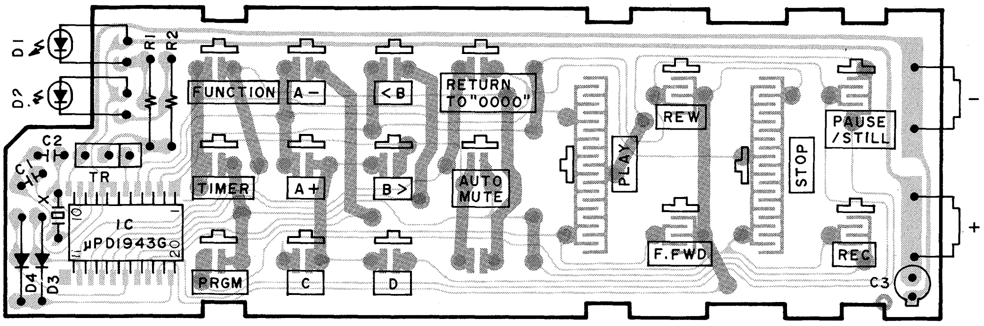
NOTE: CHIP PARTS (C,R) ARE NOT SHOWN ON THESE PATTERNS

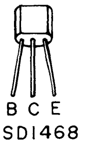

IN1 LT1141 (1/2)
LEFT LEVEL
OUT4 OUT5 OUT6 OUT7 OUT8 OUT9
OUT3 OUT10
OUT2 IC1 (L CH) OUT11
OUT1 OUT12
+IN Vcc AMP OUT VIN GND VRL VR VRH IR
L CH IN
GND
RCH IN
TO HIFI P168
J187
C3 0.001(K)
C3b 0.001(K)
C1 2.2/35(M)
R1 12k
C2 10/6.3(M)
IN1 (2/2)
RIGHT LEVEL
IC1b (RCH)
C1b 4.7/35(M)
R1b 12k
C2b 10/16(M)
REC LEVEL LT-1162
IND0 IND1 IND2 IND3 IND4 IND5 IND6 IND7
SW2 DOWN
SW3 UP
D2 R
D2 L
SW5 S.C
D2 S.C
D1 HIFI
SW4 L/ST/R
SW1 AUTO—NORMAL
D1 LD-603MG
D2 EBG3423S
VR DOWN
VR UP
VR IND 0
VR IND 1
VR IND 2
VR IND 3
VR IND 4
VR IND 5
VR IND 6
VR IND 7
IDL 12V
RIGHT
LEFT
S·C SW
S·C IND
HIFI IND
L·R/L+R
AUTO/NORMAL SW
GND(D)
J187 TO HIFI P168
J188 TO HIFI P169
W191
J192
TO HIFI P170

VS-626EO
VS-603EG/EK/ES/EZ
VS-606EA/EO
VS-607EO-G
LEVEL METER
SCHEMATIC DIAGRAM
NO.14 —13 850112A(A3)

µPD1943G (REMOTE CONTROL TRANSMITTER)

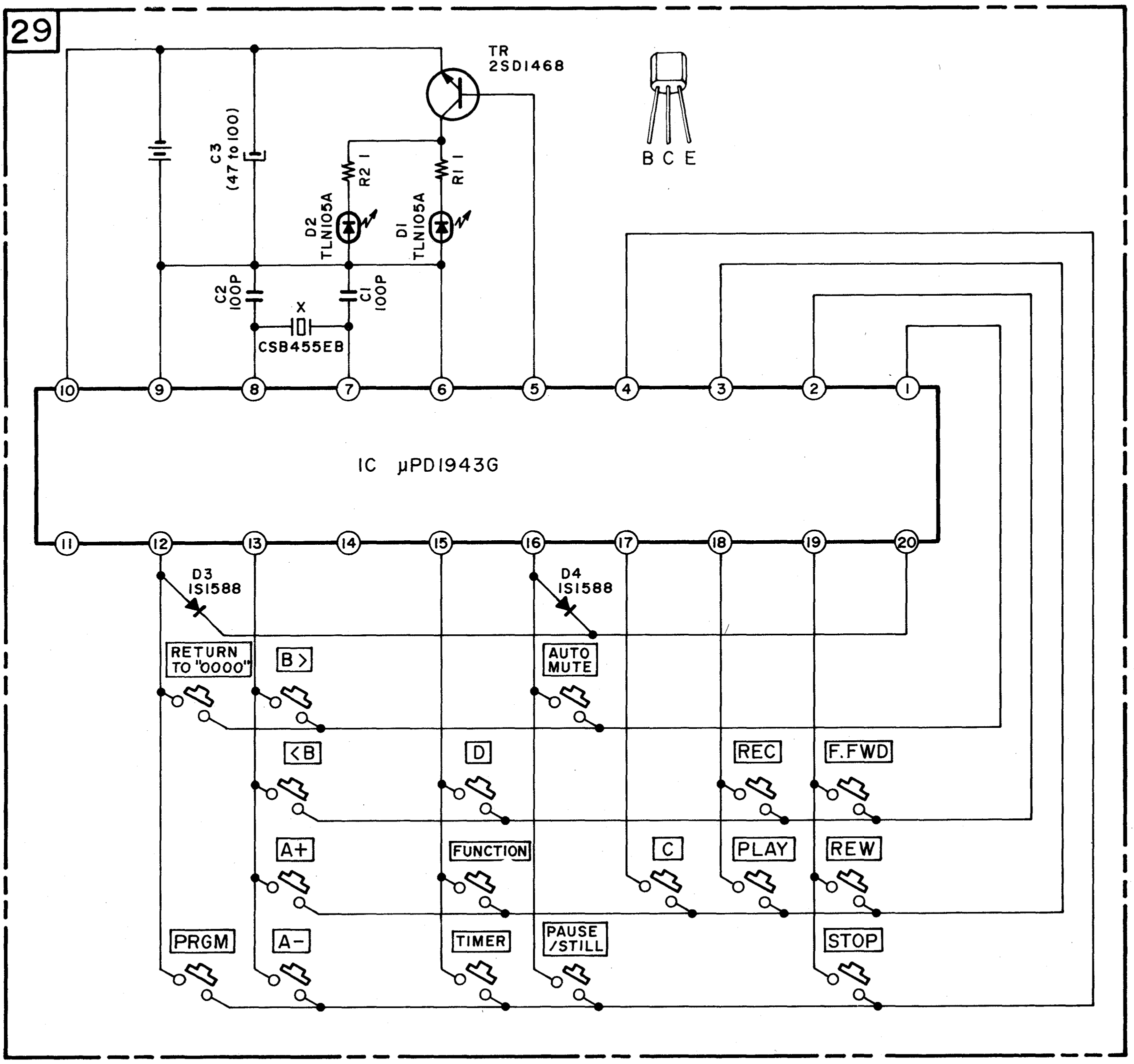

CCS K00 K01 K02 K03 K04 K05 K06 K07 LMP
20 19 18 17 16 15 14 13 12 11
KEY SIGNAL OUTPUT
CONTROL
OUTPUT
DATA REGISTER
TIMING
FREQ DEVIDER
KEY SIGNAL INPUT
OSC
1 2 3 4 5 6 7 8 9 10
KI0 KI1 KI2 KI3 REM VDD TEST OSC OUT OSC IN VSS


D1
D2
R1
R2
C2
C1
TR
X
IC
μPD1943G
D4
D3
FUNCTION
A−
<B
RETURN TO"0000"
TIMER
A+
B>
AUTO MUTE
PRGM
C
D
REW
PLAY
STOP
PAUSE /STILL
F.FWD
REC
C3
−
+


B C E
2SD1468

[● ● ●] = NPN TRANSISTOR

A+	PRESET SELECT +
A−	PRESET SELECT −
<B	FINE TUNE/TRACKING
B>	FINE TUNE/TRACKING
C	DISPLAY SELECT
D	COUNTER RESET


29
TR
2SD1468
B C E
C3 (47 to 100)
R2 1
R1 1
D2 TLN105A
D1 TLN105A
C2 100P
C1 100P
X
CSB455EB
IC μPD1943G
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
D3 1S1588
D4 1S1588
RETURN TO"0000"
B>
AUTO MUTE
<B
D
REC
F.FWD
A+
FUNCTION
C
PLAY
REW
PRGM
A−
TIMER
PAUSE /STILL
STOP

A+	CANNEL SELECT +
A−	CANNEL SELECT −
B>	FINE TUNE/TRACKING
<B	FINE TUNE/TRACKING
C	DISPLAY SELECT
D	COUNTER RESET

NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS 1/4W(J)
ALL CAPACITORS IN μF 50WV(J)

RC-V603
REMOTE CONTROL UNIT SCHEMATIC DIAGRAM

NO. 14-14 841019C

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